

# **Chassis Event Filter Profile**



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# Chassis Event Filter Profile

## 1 Scope

The Dell Chassis Event Filter Profile provides the management capabilities to view the event filters and set actions and notifications for the events.

## 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*

*Dell Lifecycle Controller Best Practices Guide 1.0*,  
[http://en.community.dell.com/techcenter/extras/m/white\\_papers/20066173.aspx](http://en.community.dell.com/techcenter/extras/m/white_papers/20066173.aspx)

*Dell WSMAN Licenses and Privileges 1.0*

DMTF DSP0226, *Web Services for Management (WS-Management) Specification 1.1.0*

DMTF DSP0227, *WS-Management CIM Binding Specification 1.0.0*

*Dell Event Message Registry*, <link TBD>

Dell Tech Center MOF Library, <http://www.delltechcenter.com/page/DCIM.Library.MOF>

- DCIM\_EFConfigurationService.mof
- DCIM\_EventFilter.mof
- DCIM\_LCElementConformsToProfile.mof
- DCIM\_LCRegisteredProfile.mof

## 3 Terms and Definitions

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

### 3.1

#### **conditional**

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

### 3.2

#### **mandatory**

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

### **3.3**

#### **may**

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

### **3.4**

#### **optional**

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

### **3.5**

#### **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

### LIFO

Last In, First Out

## 4.5

### EF

Event Filter

# 5 Synopsis

**Profile Name:** Event Filter

**Version:** 1.0.0

**Organization:** Dell

**CIM Schema Version:** 2.26 Experimental

**Dell Schema Version:** 1.0.0

**Interop Namespace:** root/interop

**Implementation Namespace:** root/dcim

**Central Class:** DCIM\_EFConfigurationService

**Scoping Class:** DCIM\_SPComputerSystem

The Dell Chassis Event Filter Profile is an autonomous profile that provides the management capabilities to filter the events of a managed system element.

DCIM\_EFConfigurationService 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

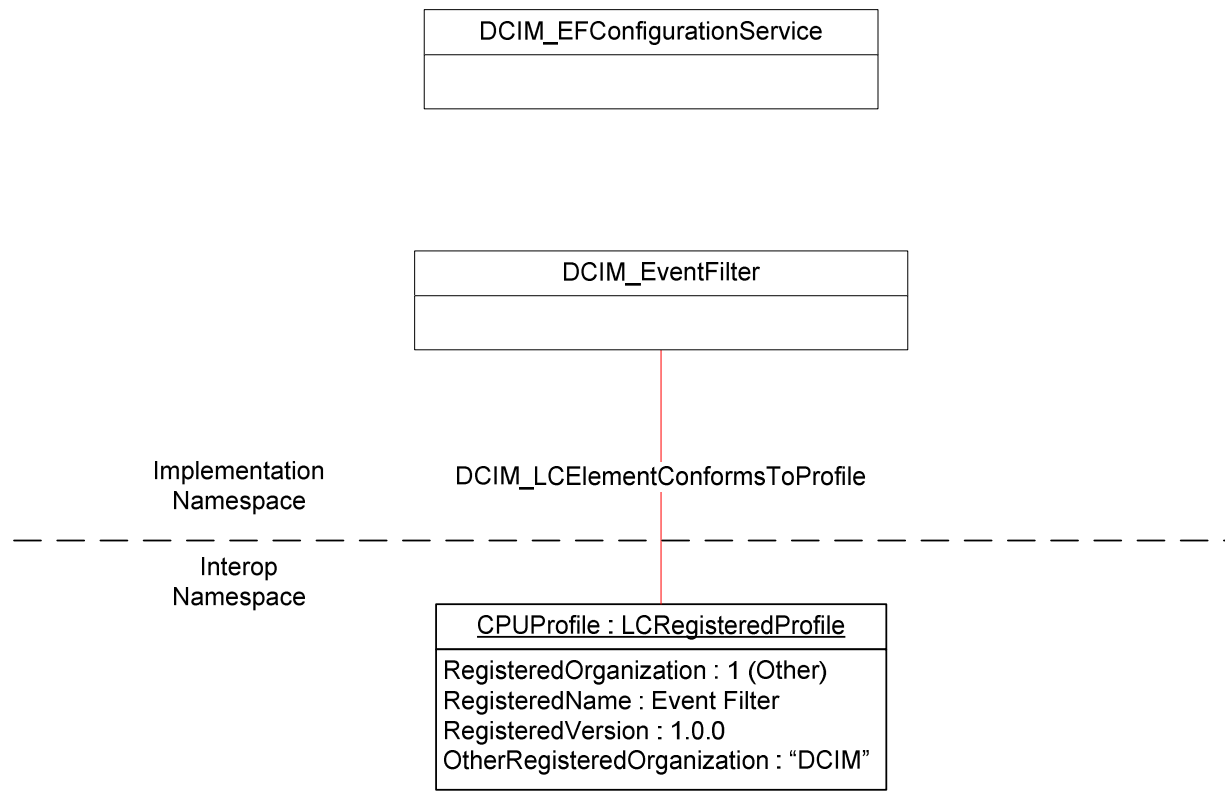
# 6 Description

The *Event Filter Profile* describes the properties and methods of the Event Filter in the managed system element or component. This profile describes the association between the managed system element and the event filters as well as the individual event filters. It also provides a way to set actions and notifications for individual event filters based on category, severity or InstanceID of the event filter.

104 Figure 1 represents the class schema for *Event Filter Profile*. For simplicity, the prefix DCIM\_ has been  
105 removed from the names of the classes.

106 The DCIM\_EFConfigurationService class represents the configuration service that allows the user to set  
107 the actions and notifications of event filters based on category and severity or purely based on  
108 instanceIDs of the event filter instances.

109 The DCIM\_EventFilter class represents the individual event filters. Each instance of the class has many  
110 attribute including the category, severity, action to be taken and notification to be sent out on case of  
111 events according to these filters.



112  
113 =

114 **Figure 1 – Chassis Event Filter Profile Implementation**



## 7 Implementation Description

This section describes the requirements and guidelines for implementing Dell Event FilterChassis Event Filter Profile.

**Table 2 – Class Requirements: Chassis Event Filter Profile**

Element Name	Requirement	Description
<b>Classes</b>		
DCIM_EFConfigurationService	Mandatory	The class shall be implemented in the Implementation Namespace. It represents the EF configuration service and the methods available.
DCIM_EventFilter	Mandatory	The class shall be implemented in the Implementation Namespace. It captures the Event Filter itself.
DCIM_LCElementConformsToProfile	Mandatory	The class shall be implemented in both the Interop and <i>Implementation Namespaces</i> .
DCIM_LCElementConformsToProfile	Mandatory	The class shall be implemented in both the Interop and <i>Interop Namespaces</i> .
DCIM_LCRegisteredProfile	Mandatory	The class shall be implemented in the <i>Interop Namespace</i> .
<b>Indications</b>		
None defined in this profile		

### 7.1 Event Filter (EF) Configuration Service

This section describes the implementation for the DCIM\_EFConfigurationService class.

This class shall be instantiated in the Implementation Namespace.

#### 7.1.1 Resource URIs for WinRM®

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

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

The instance Resource URI for DCIM\_EFConfigurationService instance shall be:  
“http://schemas.dell.com/wbem/wscim/1/cim-schema/2/DCIM\_EFConfigurationService?\_\_cimnamespace=root/dcim+SystemCreationClassName=DCIM\_SPComputerSystem+CreationClassName=DCIM\_EFConfigurationService+SystemName=systemmodular+Name=DCIM:EFConfigurationService”

#### 7.1.2 Operations

The following table details the implemented operations on DCIM\_EFConfigurationService.

**Table 3 – DCIM\_EFConfigurationService - Operations**

Operation Name	Requirements	Required Input
Get	Mandatory	Instance URI
Enumerate	Mandatory	Class URI
Invoke SetEventFilterByCategory()	Mandatory	Instance URI, parameter name-value pairs

Operation Name	Requirements	Required Input
Invoke SetEventFilterByInstanceIDs()	Mandatory	Instance URI, parameter name-value pairs

### 7.1.3 \Properties

The following table details the implemented properties for DCIM\_EFConfigurationService instance representing the configuration service for event filters 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\_EFConfigurationService – Properties**

Property Name	Type	Requirements	Additional Requirements
SystemCreationClassName	string	Mandatory	The property shall have value of “DCIM_SPComputerSystem”.
CreationClassName	string	Mandatory	The property shall have value of “DCIM_EFConfigurationService”
SystemName	string	Mandatory	The property shall have value of “systemmc”
ElementName	string	Mandatory	The property shall have value of “Event Filters”
Name	string	Mandatory	The property shall have value of “DCIM:EFConfigurationService”

## 7.2 Event Filter

This section describes the implementation for the DCIM\_EventFilter class.

For the full list of the Dell event filters, please refer to the *Dell Event Message Registry*.

This class shall be instantiated in the Implementation Namespace.

### 7.2.1 Resource URIs for WinRM®

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

The key property shall be the InstanceID.

The instance Resource URI for DCIM\_EventFilter instance shall be:

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

### 7.2.2 Operations

The following table details the implemented operations on DCIM\_EventFilter.

**Table 5 – DCIM\_EventFilter – 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\_EventFilter instance representing the event filters 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 6 – DCIM\_EventFilter – Properties**

Property Name	Type	Requirements	Additional Requirements
InstanceID	string	Mandatory	The property shall have a unique identifier.
Category	string	Mandatory	The property shall represent the event filter category and may have one of the following values: “Storage”, “Chassis Health
SubCategory	string	Mandatory	The property shall represent the event filter sub-category.
SubCategoryDescription	string	Mandatory	The property shall represent description of the sub-category.
Severity	string	Mandatory	The property shall describe the event severity and may have one of the following values: “Critical”, “Warning”, “Informational”
Action	uint16	Optional	The property shall be 0. Actions are not supported in avenger
Notification[]	uint16	Mandatory	The property array shall have values from one or more of the the PossibleNotifications property array values.
PossibleActions[]	uint16	Mandatory	The property array shall 4 (None).
PossibleActionStrings[]	String	Mandatory	The property array shall have the following value “None”
PossibleNotifications[]	uint16	Mandatory	The property array shall have the following value: 2(SNMP Trap), 3 (Email Alert
PossibleNotificationStrings[]	string	Mandatory	The property array shall have the following value“SNMP Trap”, “Email Alert”,
MessageID	string	Mandatory	For the full list of messages, please refer to the Dell Event Message Registry.

## 7.3 Chassis Event Filter ProfileRegistration

This section describes the implementation for the DCIM\_EventFilterRegisteredProfile class.

This class shall be instantiated in the Interop Namespace.

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

### 7.3.1 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"

174 The key property shall be the InstanceID property.

175 The instance Resource URI shall be: "http://schemas.dell.com/wbem/wscim/1/cim-  
176 schema/2/DCIM\_EventFilterRegisteredProfile?\_\_cimnamespace=root/interop+InstanceID=  
177 DCIM:EventFilter:1.0.0"

### 178 7.3.2 Operations

179 The following table details the implemented operations on DCIM\_EventFilterRegisteredProfile.

180 **Table 5 – DCIM\_EventFilterRegisteredProfile - Operations**

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

181

### 182 7.3.3 Properties

183 The following table details the implemented properties for DCIM\_EventFilterRegisteredProfile instance  
184 representing Chassis Event Filter Profile implementation. The "Requirements" column shall denote the  
185 implementation requirement for the corresponding property. If the column "Name" matches the property  
186 name, the property either shall have the value denoted in the corresponding column "Additional  
187 Requirements", or shall be implemented according to the requirements in the corresponding column  
188 "Additional Requirements".

189 **Table 6 – Class: DCIM\_EventFilterRegisteredProfile**

Properties	Requirement	Type	Description
InstanceID	Mandatory	String	This property shall have a value of "DCIM:EventFilter:1.0.0"
RegisteredName	Mandatory	String	This property shall have a value of "Chassis Event Filter".
RegisteredVersion	Mandatory	String	This property shall have a value of "1.0.0".
RegisteredOrganization	Mandatory	Uint16	This property shall have a value of 1 (Other).
OtherRegisteredOrganization	Mandatory	String	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.

190

191

## 192 **8 Methods**

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

### 195 **8.1 DCIM\_EFConfigurationService.SetEventFilterByCategory()**

196 A method used to set the action and notifications for all the event filters that belong to a particular  
197 category, subcategory and severity.

**Table 7 – DCIM\_EFConfigurationService.SetEventFilterByCategory() Method: Return Code Values**

Value	Description
0	Request was successfully executed.
2	Error occurred

**Table 8 – DCIM\_EFConfigurationService.SetEventFilterByCategory() Method: Parameters**

Qualifiers	Name	Type	Description/Values
IN, REQ	Category	string	Category of event filter.
IN, REQ	SubCategory	string	SubCategory of event filter.
IN, REQ	Severity	string	Severity of event filter.
IN	RequestedAction	uint16	Action requested to be set for the event filter. Refer mof for values. If the RequestedNotification is NULL or blank, this parameter shall not be NULL or blank.
IN	RequestedNotification[]	uint16	Notifications requested to be set for the event filter. Refer mof for values. If the RequestedAction is NULL or blank, this parameter shall not be NULL or blank.
OUT	MessageID	string	Error Message ID- can be used to index into Dell Message registry files
OUT	Message	string	Error Message in English corresponding to MessageID is returned if the method fails to execute
OUT	MessageArguments[]	string	Substitution variables for dynamic error messages

**Table 9 – DCIM\_EFConfigurationService.SetEventFilterByCategory() Method: Standard Messages**

MessageID (OUT parameter)	Message	MessageArguments[]
RAC038	The command failed	
RAC039	Invalid parameter value for %s	RequestedNotification, Category, Severity, SubCategory RequestedAction
RAC040	Missing parameter(s) %s	RequestedNotification, Category, Severity, SubCategory RequestedAction
RAC041	The Set operation on the event filter(s) failed	
RAC042	Invalid number of input parameters	
RAC043	Method failed to update some of the event filter settings.	
RAC044	Method failed to update all the event filter settings.	
RAC045	Event filter does not exist for input parameter combination	

## 8.2 DCIM\_EFConfigurationService.SetEventFilterByInstanceIDs()

A method used to set the action and notifications for all the event filters that belong to a particular set of InstanceIDs.

The method shall return 2 (Error Occurred), if a DCIM\_EventFilter instance referenced by the EFInstanceID parameter has PossibleActions property value equal to 4 (None).

**Table 10 – DCIM\_EFConfigurationService.SetEventFilterByInstanceIDs() Method: Return Code Values**

Value	Description
0	Request was successfully executed.
2	Error occurred

**Table 11 – DCIM\_EFConfigurationService.SetEventFilterByInstanceIDs() Method: Parameters**

Qualifiers	Name	Type	Description/Values
IN, REQ	InstanceID[]	string	InstanceIDs of the event filter instances.
IN, REQ	RequestedAction	uint16	Action requested to be set for the event filter. Refer mof for values. If the RequestedNotification is NULL or blank, this parameter shall not be NULL or blank.
IN, REQ	RequestedNotification[]	uint16	Notifications requested to be set for the event filter. Refer mof for values. If the RequestedAction is NULL or blank, this parameter shall not be NULL or blank.
OUT	MessageID	string	Error Message ID- can be used to index into Dell Message registry files
OUT	Message	string	Error Message in English corresponding to MessageID is returned if the method fails to execute
OUT	MessageArguments[]	string	Substitution variables for dynamic error messages

**Table 12 – DCIM\_EFConfigurationService.SetEventFilterByInstanceIDs() Method: Standard Messages**

MessageID (OUT parameter)	Message	
RAC038	The command failed	
RAC039	Invalid parameter value for %s	RequestedNotification, Requested Action, EFInstanceIDs
RAC040	Missing parameter(s) %s	RequestedNotification, Requested Action, EFInstanceIDs
RAC041	The Set operation on the event filter(s) failed	
RAC042	Invalid number of input parameters	
RAC046	Unsupported notification on the filter %s	EFInstanceIDs
RAC047	Unsupported action on the filter %s	EFInstanceIDs

## 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 13 – Privilege and License Requirements**

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



Class and Method	Operation	User Privilege Required	License Required
DCIM_EventFilter	ENUMERATE, GET	Login to CMC	None.
DCIM_EFConfigurationService	ENUMERATE, GET	Login to CMC	None.
DCIM_EFConfigurationService. SetEventFilterByCategory()	INVOKE	Login to CMC, Chassis Configure Admin	None.
DCIM_EFConfigurationService. SetEventFilterByInstanceIDs()	INVOKE	Login to CMC, Chassis Configure Admin	None.
DCIM_EventFilterRegisteredProfile	ENUMERATE, GET	Login	None.
DCIM_ElementConformsToProfile	ENUMERATE, GET	Login	None.

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