
1 HP Insight Management WBEM Blade System Lite Provider Overview

Description

The HP Insight Management Web-Based Enterprise Management (WBEM) Blade System Lite provider extends the management capability of referencing profiles by adding the capability to represent the Distributed Management Task Force (DMTF) Modular System Profile in HP specific ways. While this profile is based on the DMTF Modular System Profile, it does not conform to that profile. This is intended to be supported only by the blades within an enclosure as a means for tying the blade to an enclosure. This profile is not intended to be implemented by the enclosure (using the Onboard Administrator). The Onboard Administrator shall manage the shared enclosure resources.

This provider implements the following profiles and installs the necessary files:

Profile Name	Organization	Version
HP Blade System Lite Profile (P00125)	HP WBEM TC	2.0.3

For each hardware architecture listed, this provider requires the following distributions

Requirements	HP Integrity managed servers	SLES 10 and later
		RLEL 5.0 and later
	HP ProLiant managed servers	SLES 11 and later
		RHEL 5.3 and later

Release History Initial release with HP Insight Management Providers for Linux v2.0.

1-1 Setting Up the Provider

Installing the Provider There are no special installation instructions for this provider. It is installed by default as part of the HP Insight Management WBEM providers.

Configuring the Provider This provider does not accept specific configuration adjustments beyond standard HP Insight Management WBEM support.

1-2 Using the Provider

Namespaces Supported by the Provider This provider returns instances in the `root/hpq` namespace.

Schema Supported by the Provider

This provider supports the following classes:

- SMX_BladeEnclosureCS
- SMX_BladeEnclosureCollection
- SMX_BladeSystemComponent
- SMX_MemberOfBladeEnclosureCollection
- SMX_BladeEnclosureGroupHostedCollection
- SMX_BladeEnclosureFW
- SMX_BladeEnclosureFWIdentity
- SMX_BladeEnclosureInstalledFWIdentity
- SMX_BladeCSLocation
- SMX_BladeCSElementLocation

The tables in the following sections describe the properties of the supported classes. The classes are categorized by the class or superclass that defines the property, the first column is the Property Name (including type and units) and the second column describes how the provider determines the properties implementation. When the Property Implementation value is a number, the number given is the default behavior and the Managed Object Format interpretation is within parenthesis. If other values are returned, a problem is indicated.

Unless otherwise noted, all of the property implementation values given are for HP ProLiant and HP Integrity (cellular and non-cellular) systems. The location related properties and implementation values are determined based on the server type so they may differ.

1-2-1 SMX_BladeEnclosureCS Class

The SMX_BladeEnclosureCS class implements the HP_BladeEnclosureCS class and describes a blade system enclosure.

The following table lists the properties implemented.

Property Name	Property Implementation
CIM_ManagedElement	

Property Name	Property Implementation
Caption	<p>A description of the class.</p> <p>For example, if enclosure name exists:</p> <p>HP BladeSystem enclosure <enclosure name></p> <p>otherwise:</p> <p>HP BladeSystem enclosure</p>
Description	<p>A description of the class.</p> <p>For example, if enclosure name exists:</p> <p>HP BladeSystem enclosure <enclosure name></p> <p>otherwise:</p> <p>HP BladeSystem enclosure</p>
ElementName	<p>A description of the class.</p> <p>For example, if enclosure name exists:</p> <p>HP BladeSystem enclosure <enclosure name></p> <p>otherwise:</p> <p>HP BladeSystem enclosure</p>
CIM_ManagedSystemElement	
OperationalStatus	<p>0 (Unknown), enclosure status: Unknown</p> <p>2 (OK), enclosure status: OK</p> <p>3 (Degraded), enclosure status: Degraded</p> <p>6 (Error), enclosure status: Error</p>
StatusDescriptions	<p>StatusDescriptions[0] per OperationalStatus[0]:</p> <p>Server Blade Enclosure and Onboard Administrator status: Unknown</p> <p>Server Blade Enclosure and Onboard Administrator status: OK</p> <p>Server Blade Enclosure and Onboard Administrator status: Degraded"</p> <p>Server Blade Enclosure and Onboard Administrator status: Error</p>
HealthState	<p>0 (Unknown), enclosure status: Unknown</p> <p>5 (OK), enclosure status: OK</p> <p>10 (Degraded/Warning), enclosure status: Degraded</p> <p>20 (Major Failure), enclosure status: Error</p>

Property Name	Property Implementation
CIM_LogicalElement	
CIM_EnabledLogicalElement	
EnabledState	5 (Not Applicable)
RequestedState	12 (Not Applicable)
EnabledDefault	2 (Enabled)
CIM_System	
CreationClassName	SMX_BladeEnclosureCS
CIM_ComputerSystem	
Dedicated	2 (Other)
OtherDedicatedDescriptions	Modular
IdentifyingDescriptions	IdentifyingDescriptions[0]: HPQ:ProductID IdentifyingDescriptions[1]: CIM:Model:SerialNumber
OtherIdentifyingInfo	OtherIdentifyingInfo[0]: <ProductID_String> Where: <ProductID_String> is the blade enclosure product ID. OtherIdentifyingInfo[1]: <Model_String>:<Serial_Number_String> Where: <Model_String> is the blade enclosure model string; and <Serial_Number_String> is the blade enclosure serial number string.
Name	Text description of the modular system enclosure. The DNS name is populated if available.
NameFormat	DNSName
HP_BladeEnclosureCS	
ManagementIPAddress	The enclosure's management IP address.
ManagementURL	The URL of the enclosure's management web-based user interface.
SerialNumber	The serial number of the blade enclosure.

Property Name	Property Implementation
ProductID	The product ID of the blade enclosure.
RackName	The name of the rack.
RackUUID	The UUID of the rack.
EnclosureName	Then name of the blade enclosure.

1-2-2 SMX_BladeEnclosureCollection Class

The `SMX_BladeEnclosureCollection` class implements the `HP_BladeEnclosureCollection` class to aggregate the enclosure's group operational status.

The following table lists the properties implemented.

Property Name	Property Implementation
CIM_ManagedElement	
Description	A description of the class.
ElementName	A name for the class, for example Server Blade Enclosure Collection.
CIM_Collection	
CIM_SystemSpecificCollection	
InstanceID	Opaque identifier using HPQ for OrgID. For example: HPQ:SMX_BladeEnclosureCollection:1.
HP_GroupSystemSpecificCollection	
Caption	A caption for the class, for example Server Blade Enclosure Collection
GroupOperationalStatus	Describes the group operational status of the blade enclosure collection. The group operational status represents the 'worst-of' algorithm for all individual enclosure statuses in <code>HP_BladeEnclosureCS.OperationalStatus[0]</code> . GroupOperationalStatus[0] contains group operational status: 0 (Unknown) 2 (OK) 3 (Degraded) 6 (Error)

Property Name	Property Implementation
GroupStatusDescriptions	GroupStatusDescriptions[0] per GroupOperationalStatus[0]: Server Blade Enclosure and Onboard Administrator status: Unknown Server Blade Enclosure and Onboard Administrator status: OK Server Blade Enclosure and Onboard Administrator status: Degraded Server Blade Enclosure and Onboard Administrator status: Error
HP_BladeEnclosureCollection	

1-2-3 SMX_BladeSystemComponent Class

The SMX_BladeSystemComponent class implements the HP_BladeSystemComponent class and associates the enclosure's computer system instance to the blade's computer system instance.

The following table lists the properties implemented.

Property Name	Property Implementation
CIM_Component	
CIM_SystemComponent	
HP_BladeSystemComponent	
GroupComponent	References HP_BladeEnclosureCS (the blade enclosure computer system)
PartComponent	References CIM_ComputerSystem (the blade servers computer system)

1-2-4 SMX_MemberOfBladeEnclosureCollection Class

The SMX_MemberOfBladeEnclosureCollection class implements the HP_MemberOfBladeEnclosureCollection class and associates the enclosure's computer system instance to the blade enclosure collection instance.

The following table lists the properties implemented.

Property Name	Property Implementation
CIM_MemberOfCollection	
HP_MemberOfBladeEnclosureCollection	

Property Name	Property Implementation
Collection	References HP_BladeEnclosureCollection
Member	References HP_BladeEnclosureCS

1-2-5 SMX_BladeEnclosureGroupHostedCollection Class

The SMX_BladeEnclosureGroupHostedCollection class implements the HP_BladeEnclosureGroupHostedCollection class and associates the enclosure's computer system instance to the blade enclosure collection instance.

The following table lists the properties implemented.

Property Name	Property Implementation
CIM_Dependency	
CIM_HostedDependency	
CIM_HostedCollection	
HP_GroupHostedCollection	
HP_BladeEnclosureGroupHostedCollection	
Antecedent	References HP_BladeEnclosureCS
Dependent	References HP_BladeEnclosureCollection

1-2-6 SMX_BladeEnclosureFW Class

The SMX_BladeEnclosureFW class implements the HP_BladeEnclosureFW class and describes blade enclosure firmware.

The following table lists the properties implemented.

Property Name	Property Implementation
CIM_ManagedElement	
Caption	A caption for the class. For example Server Blade Enclosure Firmware.
Description	A description for the class. For example HP Server Blade Enclosure Firmware.
ElementName	OA
CIM_ManagedSystemElement	

Property Name	Property Implementation
Name	<p>A description of the class.</p> <p>For example, if enclosure name exists:</p> <p>HP BladeSystem enclosure <Enclosure_Name></p> <p>otherwise:</p> <p>HP BladeSystem enclosure</p>
OperationalStatus	2 (OK), normal operation
StatusDescriptions	Server Blade Enclosure Firmware status: OK
HealthState	5 (OK), normal operation
CIM_LogicalElement	
CIM_SoftwareIdentity	
InstanceID	<p>Opaque identifier using HPQfor OrgID.</p> <p>For example:</p> <p>HPQ:SMX_BladeEnclosureFirmware:1.</p>
MajorVersion	The major version of the blade enclosure firmware.
MinorVersion	The minor version number of the blade enclosure firmware.
VersionString	String indicating the blade enclosure firmware version information. This property is the string translation of the content provided in the MajorVersion and MinorVersion properties.
Manufacturer	Hewlett-Packard
Classifications	10 (Firmware)
ClassificationDescriptions	HP Server Blade Enclosure Firmware
IdentifyingInfoValue	HPQ:OA
IdentifyingInfoType	CIM:SoftwareFamily
HP_BladeEnclosureFW	

1-2-7 SMX_BladeEnclosureElementFWIdentity Class

The SMX_BladeEnclosureElementFWIdentity class implements the HP_BladeEnclosureElementFWIdentity class and associates a blade enclosure to its corresponding firmware.

The following table lists the properties implemented.

Property Name	Property Implementation
CIM_Dependency	
CIM_ElementSoftwareIdentity	
UpgradeCondition	3 (Owner Upgradeable)
ElementSoftwareStatus	ElementSoftwareStatus[0] 6 (Installed) ElementSoftwareStatus[1] 2 (Current)
HP_BladeEnclosureElementFWIdentity	
Antecedent	References HP_BladeEnclosureFW
Dependent	References HP_BladeEnclosureCS

1-2-8 SMX_BladeEnclosureInstalledFWIdentity Class

The SMX_BladeEnclosureInstalledFWIdentity class implements the HP_BladeEnclosureInstalledFWIdentity class and associates a blade enclosure to its corresponding installed firmware.

The following table lists the properties implemented.

Property Name	Property Implementation
CIM_InstalledSoftwareIdentity	
HP_BladeEnclosureInstalledFWIdentity	
System	References HP_BladeEnclosureCS
InstalledSoftware	References HP_BladeEnclosureFW

1-2-9 SMX_BladeCSLocation Class

The SMX_BladeCSLocation class implements the HP_Location class and is used to model the server blade location within an enclosure.

The following table lists the properties implemented.

Property Name	Property Implementation
CIM_ManagedElement	
Caption	<p>A description of the Blade location.</p> <p>For example: Blade Computer System Bay Location <n></p> <p>where: <n> represents the blade bay slot position printed on the enclosure labeling.</p>
Description	<p>A description of the Blade location.</p> <p>For example: Blade Computer System Bay Location <n></p> <p>where: <n> represents the blade bay slot position printed on the enclosure labeling.</p>
ElementName	<p>A description of the Blade location.</p> <p>For example: Blade Computer System Bay Location <n></p> <p>where: <n> represents the blade bay slot position printed on the enclosure labeling.</p>
CIM_Location	
Name	<p>Unique identifier for this blade bay location instance.</p> <p>For example: HPQ:SMX_BladeCSLocation:<n></p> <p>Where: <n> represents the blade bay slot position printed on the enclosure labeling.</p>
PhysicalPosition	<p><n></p> <p>where: <n> represents the blade bay slot position printed on the enclosure labeling.</p>
HP_Location	
ElementLocationTag	The computer system name.
ElementLocationTagDesc	24 (Blade)
LocationInformation	<p>LocationInformation[0]:</p> <p>The blade bay number within the enclosure.</p>
LocationInfoDesc	<p>LocationInfoDesc[0]:</p> <p>14 (Blade Bay)</p>

1-2-10 SMX_BladeCSElementLocation Class

The `SMX_BladeCSElementLocation` class implements the `HP_ElementLocation` class and is used to represent an association between the `CIM_Location` and `CIM_ManagedElement` classes.

Property Name	Value
Element	References <code>CIM_ComputerSystem</code>
PhysicalLocation	References <code>HP_BladeCSLocation</code>

1-3 Provider Indications

Indications Generated by the Provider This provider generates no indications.