Enclosure Manager Instance Provider

Provider overview

The Enclosure Manager Instance Provider retrieves information related to Enclosure of the Blade system.

Description

The Enclosure Manager Provider is a Web-Based Enterprise Management (WBEM) Instance Provider that retrieves enclosure information from HP Blade servers based on HP Integrity Servers, running HP OpenVMS. This provider is compliant with the Common Information Model (CIM) 2.8 Schema, proposed by the Distributed Management Task Force (DMTF).

The Enclosure Manager Provider allows any client, compliant with the CIM 2.8 Schema, to query for information about the managed blade system's Enclosure details. The Enclosure Manager Instance Provider implements Enclosure related CIM classes, proposed in the DMTF CIM 2.8 revision. In addition to the properties that belong to the standard CIM classes, the Enclosure Manager Provider serves information that is specific to HP Blade Servers, by implementing HP-specific CIM classes, derived from the standard DMTF classes.

The following MOF class is handled by the Enclosure Manager Instance Provider:

- HP_BladeEnclosureCS

HP_BladeEnclosureCS (subclass of CIM_ComputerSystem) contains Enclosure related information. The MOF class mentioned above (i.e. all MOF classes prefixed with "HP_") are HP-specific extensions to the CIM Schema, and are registered in the "root/cimv2" namespace.

For the MOF class mentioned above, the Enclosure Manager Instance Provider supports the following standard CIM Operations:

- enumerateInstanceNames()
- enumerateInstances()
- getInstance()

The following CIM operations are not supported by the Enclosure Manager Instance Provider:

- createInstance()
- deleteInstance()
- modifyInstance()

Enclosure Manager Instance Provider is not a CIM Method Provider, and does not support extrinsic method invocation on instances on any of the MOF classes mentioned above. The invocation of any of these methods will result in a CIM_ERR_NOT_SUPPORTED exception.

requirements

The Provider requires HP WBEM Services for HP OpenVMS

release history

- o   HP I64VMS WBEMPROVIDERS V1.7-16 (May 2009)
- o   HP I64VMS WBEMPROVIDERS V2.0-4 (June 2010)
- o   HP I64VMS WBEMPROVIDERS V2.1-4 (August 2010)
- o   HP I64VMS WBEMPROVIDERS V2.2-3 (February 2011)

supported managed resources

This provider retrieves information related to the Blade Enclosure on the system.

Note that the Enclosure Manager Instance Provider retrieves only the information about the above resources. It does not retrieve any management, diagnostic or configuration capabilities for the above resources.

setting up this provider

installing this provider

The installation of HP WBEM Providers will set up this provider. Ensure HP WBEM Services is already installed.

On installation, executable binaries, configuration files and MOF definition and registration files will be available in their respective directory, as follows:

- The CIM MOF file, HP_ComputerSystem.mof will be available in SYS$COMMON:[WBEMPROVIDERS.MOF] must be executed before the registration. It contains the definitions of the HP-specific MOF classes, (namely HP_BladeEnclosureCS.mof). This directory will also include the provider registration file, namely HP_BladeEnclosureCSR.mof. Note: All the HP-specific MOF classes will be registered under the "root/cimv2" namespace.

- The SYS$SPECIFIC:[WBEMPROVIDERS] directory will contain the configuration files of the WBEM Providers Product.

- The WBEM Services SYS$SPECIFIC:[WBEM_SERVICES]CIMSERVER_STARTUP.LOG log file will contain logs generated during the execution of this provider. By editing the "Severity" property in the SYS$SPECIFIC:[WBEMPROVIDERS]FMLOGGERCONFIG.TXT file different levels of messages in the SYS$SPECIFIC:[WBEM_SERVICES]CIMSERVER.LOG can be generated. The valid values are TRACE, DEBUG, INFORMATIONAL, WARNING, ERROR, CRITICAL, STOPLOGGING.

Configuring this provider

This provider does not accept specific configuration adjustments (beyond standard WBEM support).

using this provider

schema supported by this provider

The "Description" section explains in brief the different MOF classes supported by Enclosure manager Instance Provider. The following tables list all the supported properties corresponding to these MOF classes, along with the properties inherited from the standard CIM MOF classes, as per CIM 2.8 schema specifications.

Note: All non-key properties that are not supported are also listed below with comment "Not Supported".

Table 1: *HP_BladeEnclosureCSProvider* properties

Property name	Property inheritance	Property value (and data source)
uint16OperationalStatus	Inherited from CIM_ManagedSystemElement	[0] = Overall MP status: 0=Unknown 2=OK 3=Degraded 6=Critical
String StatusDescriptions	Inherited from CIM_ManagedSystemElement	- OnboardAdministrator is in OK state. - OnboardAdministrator is in Degraded state. - OnboardAdministrator has critical errors. - OnboardAdministrator is in unknown state.
String ManagementIPAddress	Inherited from HP_BladeEnclosureCS	IP address of Enclosure Manager.
String ManagementMACAddress	Inherited from HP_BladeEnclosureCS	MAC address of Enclosure Manager.
string ManagementURL	Inherited from HP_BladeEnclosureCS	The Uniform Resource Locator of the Enclosure manager.
string RackName	Inherited from HP_BladeEnclosureCS	User defined rack name set through Onboard Administrator.
string RackUID	Inherited from HP_BladeEnclosureCS	The UID assigned for the Rack.
String BladeBayNumber	Inherited from HP_ComputerSystem	Bay number to which the Blade is associated/connected to.
String EnclosureName	Inherited from HP_BladeEnclosureCS	Enclosure name. Example : OA–0016355E3003

String EnclosureSerialNumber	Inherited from HP_BladeEnclosureCS	Enclosure Serial Number. Example : 1Z34AB7580
String EnclosureModel	Inherited from HP_ComputerSystem	Return the EnclosureModel
String Name	Inherited from CIM_System	Returns the MP ipaddress
String CreationClassName	Inherited from CIM_EnabledLogicalElement	Returns "HP_BladeEnclosureCS"
string Caption	Inherited from CIM_ManagedElement	The Caption property is a short textual description (one line string) of the object.
string Description	Inherited from CIM_ManagedElement	The Description property provides a textual description of the object.
String ElementName	Inherited from CIM_ManagedElement	For HP Integrity Servers, this string is set to "BladeSystem, Onboard Administrator "
string BladeName	Inherited from HP_BladeEnclosureCS	This represents the Blade Name.
uint16 Dedicated[]	Inherited from CIM_ComputerSystem	Not supported
uint16 EnabledDefault	Inherited from CIM_EnabledLogicalElement	Not supported
uint16 EnabledState	Inherited from CIM_EnabledLogicalElement	Not supported
boolean HealthState	Not supported	Not supported
string IdentifyingDescriptions	Inherited from CIM_ComputerSystem	Not supported
datetime InstallDate	Inherited from CIM_ManagedSystemElement	Not supported
string NameFormat	Inherited from CIM_System	Not supported
string OtherDedicatedDescriptions	Inherited from CIM_ComputerSystem	Not supported
string OtherEnabledState	Inherited from CIM_EnabledLogicalElement	Not supported
string OtherIdentifyingInfo	Inherited from CIM_ComputerSystem	Not supported
Uint16[] PowerManagementCapabilities	Inherited from CIM_UnitaryComputerSystem	Not supported
string PrimaryOwnerContact	Inherited from HP_ComputerSystem	Not supported
string PrimaryOwnerName	Inherited from HP_ComputerSystem	Not supported
string PrimaryOwnerPager	Inherited from HP_ComputerSystem	Not supported
uint16 RequestedState	Inherited from CIM_ConcreteJob	Not supported
uint16 ResetCapability	Inherited from CIM_UnitaryComputerSystem	Not supported
string Roles[]	Inherited from CIM_System	Not supported
string SecondaryOwnerContact	Inherited from HP_ComputerSystem	Not supported
string SecondaryOwnerName	Inherited from HP_ComputerSystem	Not supported
string SecondaryOwnerPager	Inherited from HP_ComputerSystem	Not supported
string SerialNumber	Inherited from HP_ComputerSystem	Not supported
string Status	Inherited from CIM_ManagedElement	Not supported

datetime TimeOfLastStateChange	Inherited from CIM_ConcreteJob	Not supported

Intrinsic methods for all the CIM classes supported by Enclosure Manager Instance Provider

This Table describes the intrinsic methods supported by this provider. It has three columns. The first is the method name, the second is a description of the provider's actions based on invoking that method, and the third is a list of any exceptions that could result from invoking the method. Each row describes a method.

Method name	description	exceptions thrown
enumerateInstances	Returns all instances of class with values of supported properties. (See tables above.)	
enumerateInstanceNames	Returns object path of all instances of class.	
getInstance	Returns an instance that matches the keys with values of supported properties. (See table above.)	
modifyInstance	This operation is not supported by the Enclosure Manager Instance Provider. This is indicated to the client, via exceptions.	CIMNotSupportedException
deleteInstance	This operation is not supported by the Enclosure Manager Instance Provider. This is indicated to the client, via exceptions.	CIMNotSupportedException
createInstance	This operation is not supported by the Enclosure Manager Instance Provider. This is indicated to the client, via exceptions.	CIMNotSupportedException

indications generated by this provider   This Provider does not generate any indications.

Related Documentation
- **WBEM information**
    - For a CIM tutorial, go to http://www.dmtf.org/education/tutorials
    - For information about HP WBEM Services go to http://h71000.www7.hp.com/openvms/products/wbem/wbem_index.html.
    - HP WBEM Providers Release Notes bundled with the WBEM Providers kit.
    - HP WBEM Providers Installation and Administrator's Guide bundled with the WBEM Providers kit.

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