Areca Hardware RAID Controllers

and

Software Management (CIM Provider)

for

VMware ESX6.x Platforms

v1.0

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5. Overview

The Common Information Model (CIM) is an open standard that defines how managed elements in an IT environment are represented as a common set of objects and relationships between them. This is intended to allow consistent management of these managed elements, independent of their manufacturer or provider. CIM provides a unified method for managing an enterprise network without requiring an overhaul of the existing network management infrastructure.

Areca CIM Provider, arcpvd, is CMPI based and on the VMware platforms (ESXi6x) it is registered to SFCB (Small Foot Print Broker) CIMOM. The provider allows adapters management using any standard CIM-based management software and API. Through the provider, the information of RAID set, volumes, disks and controller could be provided.

The provider supports SLP which can be used to get the supported profiles.

1. Requirements

2.1 Hardware

* Whole series of Areca RAID controllers, ARC12XX/16XX/18XX. Please refer to http://www.areca.com.tw/products/main.htm.
* VMware ESXi 6.x compatible Server boards. Please refer to http://www.vmware.com/resources/compatibility/search.php

2.2 Software

* VMware-esx-provider-arcpvd.vib, Areca CIM provider
* Alc, Areca provider client utility or wbemcli, http://sblim.sourceforge.net/wiki/index.php/Wbemcli
* scsi-arcmsr\_1.30.00.02-1OEM.600.0.0.2494585.vib, Areca ESXi driver. Please refer to ftp://ftp.areca.com.tw/RaidCards/AP\_Drivers/VMware/ESXi\_6.0/

1. Installation and Configuration

* Download the CIM package from the Areca Technology, <ftp://ftp.areca.com.tw/RaidCards/AP_Drivers/VMware/ESXi_6.0/>
* Copy the VIBs or offline bundles to the ESXi server or any accessible to the ESX console shell.

The example uses the Linux 'scp' utility to copy the file from a local system to an ESX server located at 192.168.0.38:

* scp VMware-esx-provider-arcpvd.vib [root@192.168.0.38:/tmp](mailto:root@192.168.0.38:/tmp)
* scp scsi-arcmsr\_1.30.00.02-1OEM.600.0.0.2494585.vib [root@192.168.0.38:/tmp](mailto:root@192.168.0.38:/tmp)
* Install the CIM package.
* esxcli software vib install -v /tmp/ VMware-esx-provider-arcpvd.vib
* esxcli software vib install -v /tmp/ scsi-arcmsr\_1.30.00.02-1OEM.600.0.0.2494585

1. CIM Profiles & Schema

Areca provider, arcpvd, is compliant to SMI‐S Host Hardware RAID Controller profile and supports namespace: areca/cimv2, and root/cimv2.

Table 1: Supported CIM Classes

|  |  |  |
| --- | --- | --- |
|  | Areca | DMTF |
| 1 | Areca\_EventLog | CIM\_MessageLog |
| 2 | Areca\_RAIDControllerSystem | CIM\_ComputerSystem |
| 3 | Areca\_PortController | CIM\_PortController |
| 4 | Areca\_SoftwareIdentity | CIM\_SoftwareIdentity |
| 5 | Areca\_StoragePool | CIM\_StoragePool |
| 6 | Areca\_DefaultStorageSetting | CIM\_StorageSetting |
| 7 | Areca\_StorageVolume | CIM\_StorageVolume |
| 8 | Areca\_DiskDriveSlot | CIM\_Slot |
| 9 | Areca\_SASSATAPort | CIM\_SASSATAPort |
| 10 | Areca\_Battery | CIM\_Battery |
| 11 | Areca\_Chassis | CIM\_Chassis |
| 12 | Areca\_PhysicalPackage | CIM\_PhysicalPackage |
| 13 | Areca\_DiskDrive | CIM\_DiskDrive |
| 14 | Areca\_DiskExtent | CIM\_StorageExtent |
| 15 | Areca\_AllocatedFromStoragePool | CIM\_AllocatedFromStoragePool |
| 16 | Areca\_ElementSettingData | CIM\_ElementSettingData |
| 17 | Areca\_ComputerSystemSoftwareIdentity | CIM\_ElementSoftwareIdentity |
| 18 | Areca\_DiskDriveSoftwareIdentity | CIM\_ElementSoftwareIdentity |
| 19 | Areca\_HostedStoragePool | CIM\_HostedStoragePool |
| 20 | Areca\_LogicalIdentity | CIM\_LogicalIdentity |
| 21 | Areca\_RealizesPortController | CIM\_Realizes |
| 22 | Areca\_RealizesDiskDrive | CIM\_Realizes |
| 23 | Areca\_PackageInConnector | CIM\_PackageInConnector |
| 24 | Areca\_Container | CIM\_Container |
| 25 | Areca\_ConcreteComponent | CIM\_ConcreteComponent |
| 26 | Areca\_MediaPresent | CIM\_MediaPresent |
| 27 | Areca\_SystemDeviceStorageVolume | CIM\_SystemDevice |
| 28 | Areca\_SystemDeviceDiskDrive | CIM\_SystemDevice |
| 29 | Areca\_SystemDeviceSASSATAPort | CIM\_SystemDevice |
| 30 | Areca\_SystemDeviceBattery | CIM\_SystemDevice |
| 31 | Areca\_SystemDeviceSoftwareIdentity | CIM\_SystemDevice |
| 32 | Areca\_SystemPackaging | CIM\_SystemPackaging |
| 33 | Areca\_RegisteredProfile | CIM\_RegisteredProfile |
| 34 | Areca\_ControllerConformsToProfile | CIM\_ElementConformsToProfile |