Cisco UCS SMASH Reference Guide

Release 1.0
June 15, 2010

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Preface

This preface describes the audience and organization of the *Cisco UCS SMASH Reference Guide*. It also provides information on how to obtain related documentation. This preface contains the following topics:

- Objectives, page v
- Organization, page v
- Document Conventions, page vi
- Related Documentation, page vii
- Obtaining Documentation and Submitting a Service Request, page vii

Objectives

This document describes the SMASH support in the Cisco UCS Servers.

This document does not provide detailed instructions on how to use the SMASH management methods. For usage instructions, see the DMTF documentation at:

http://www.dmtf.org/standards/mgmt/smash

Audience

This reference guide is designed for users who are responsible for the following:

- Implementing Cisco UCS Server instances
- Managing Cisco UCS instances

Organization

This guide is organized into the following chapters:

- Chapter 1, “Introduction”
- Chapter 2, “Accessing and Using the SMASH CLP”
- Chapter 3, “Accessing and Using WS-Management”
- Chapter 4, “Supported Profiles”

Document Conventions

This document uses the following conventions:

Note Means reader *take note*. Notes contain helpful suggestions or references to material not covered in the manual.

Caution Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Tip Means *the following information will help you solve a problem.*

Command descriptions use these conventions:

Convention	Description
boldface font	Commands and keywords are in boldface.
italic font	Arguments for which you supply values are in italics.
[ ]	Elements in square brackets are optional.
{ x | y | z }	Alternative keywords are grouped in braces and separated by vertical bars.
[x | y | z]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.

Screen examples use these conventions:

`screen font`	Terminal sessions and information that the switch displays are in screen font.
`boldface screen font`	Information that you must enter is in boldface screen font.
`italic screen font`	Arguments for which you supply values are in italic screen font.
^	The symbol ^ represents the key labeled Control—for example, the key combination ^D in a screen display means hold down the Control key while you press the D key.
< >	Non-printing characters, such as passwords, are in angle brackets.
[ ]	Default responses to system prompts are in square brackets.
!, #	An exclamation point (!) or number sign (#) at the beginning of a line of code indicates a comment line.

Related Documentation

The documentation sets for the Cisco UCS B-Series and C-Series servers can be found at the following URLs:

- http://www.cisco.com/go/unifiedcomputing/b-series-doc
- http://www.cisco.com/go/unifiedcomputing/c-series-doc

Documentation for the Systems Management Architecture for Server Hardware (SMASH) can be found at the following URL:

- http://www.dmtf.org/standards/mgmt/smash

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS Version 2.0.

CHAPTER 1

Introduction

This chapter provides an overview of SMASH support in the Cisco UCS Servers.

This chapter contains the following sections:

- About the Cisco Unified Computing System, page 1-1
- About the DMTF, page 1-1
- About the CIM, page 1-1
- About SMASH, page 1-2
- About This Guide, page 1-2

About the Cisco Unified Computing System

Cisco Unified Computing System (Cisco UCS) fuses access layer networking and servers. This high-performance, next-generation server system provides a data center with a high degree of workload agility and scalability. The hardware and software components support Cisco's unified fabric, which runs multiple types of data center traffic over a single converged network adapter.

About the DMTF

The Distributed Management Task Force (DMTF) is an industry organization that develops and promotes standards for the platform-independent management of enterprise servers and systems. Founded in 1992, the DMTF has a membership of more than 200 organizations and companies, including many universities and most major vendors of enterprise IT systems. The activities of the DMTF consist of several general initiatives, with multiple working groups addressing specific aspects of each initiative.

About the CIM

The central concept at the core of most DMTF standards is the Common Information Model (CIM), an object-oriented framework for modeling the logical and physical components of an information system. The CIM describes a common set of managed elements and the relationships between them.

The CIM Schema defines a hierarchy of classes in which subclasses inherit general attributes from parent classes while adding more specialized attributes. Each class will have one or more instances. Each instance has a number of properties and each property has a value. For example, a 2 gigabyte DIMM memory module is an instance of the CIM_PhysicalMemory class, which is a subclass of the CIM_Chip class, and has a Capacity property whose value is 2147483648 bytes.

The CIM further defines profiles, which comprise the classes, properties, methods, and values that are required to represent and manage a particular management domain or functional area. For example, the Fan profile describes the properties and methods of fans and redundant fans in a managed system. This profile associates the physical fan instance with a sensor instance and requires the ability to sense and set properites such as fan speed and state. The DMTF publishes specifications for many standard profiles, with most system vendors implementing a subset of the available profiles.

About SMASH

The Systems Management Architecture for Server Hardware (SMASH) initiative is a suite of specifications defining a common architectural model, standard protocols, and profiles to facilitate the management of a data center, independent of vendor, topology, or operating system. The SMASH initiative includes two methods of interaction for system management:

- Server Management Command Line Protocol (CLP)—A universal command line syntax allowing an operator or a script to execute common system tasks over a text-based transport protocol.
- WS-Management—A universal Web services interface for system management.

Either interface provides control of the managed elements of the CIM for the underlying system.

Cisco UCS servers implement both interaction methods.

About This Guide

The purpose of the *Cisco UCS SMASH Reference Guide* is as follows:

- List the profiles, classes, properties, and methods of SMASH management that are supported by the Cisco UCS Servers.
- Provide instructions for accessing the SMASH management interfaces that are supported by the Cisco UCS Servers.

This guide does not provide detailed instructions on how to use the SMASH management methods. For usage instructions, see the DMTF documentation at the following URL:

http://www.dmtf.org/standards/mgmt/smash

CHAPTER 2

Accessing and Using the SMASH CLP

This chapter describes how to access the SMASH CLP and provides limited information about its use. For detailed information about using the SMASH CLP, see the DMTF documentation at the following URL:

http://www.dmtf.org/standards/mgmt/smash

This chapter contains the following topics:

- Accessing the SMASH CLP, page 2-1
- Viewing the Available Commands, page 2-2
- Viewing the Properties, Targets, and Verbs, page 2-2
- Navigating to CLP Objects, page 2-3
- Configuring a CLP Property, page 2-3
- Task Examples, page 2-3

Accessing the SMASH CLP

The SMASH CLP interface is activated from within the Cisco UCS server command line interface. To access the SMASH CLP, connect to the command line interface of the UCS server using SSH or a console connection.

To activate the SMASH CLP, perform this task from the Cisco UCS server command line interface:

	Command	Purpose
Step 1	`Server# connect clp`	Enters the CLP environment.
Step 2	`/admin1->`	This is the CLP prompt.

This example shows how to enter the CLP environment:

```
ucs-c460# connect clp
/admin1->
```

Viewing the Available Commands

The **help** command displays the SMASH CLP commands and options that are available at each level. To view the commands, perform this task:

	Command	Purpose
Step 1	`/admin1-> help`	Displays the CLP commands and options.

This example shows how to view the CLP command options:

```
/admin1-> help
[Usage]
    show   [<options>] [<target>] [<properties>]
           [<propertyname>== <propertyvalue>]
    set    [<options>] [<target>] <propertyname>=<value>
    cd     [<options>] [<target>]
    create [<options>] <target> [<property of new target>=<value>]
           [<property of new target>=<value>]
    delete [<options>] <target>
    exit   [<options>]
    reset  [<options>] [<target>]
    start  [<options>] [<target>]
    stop   [<options>] [<target>]
    version [<options>]
    help   [<options>] [<help topics>]
    load -source <URI> [<options>] [<target>]
    dump -destination <URI> [<options>] [<target>]

/admin1->
```

Tip You can use the Tab key to complete a command. Partially typing a command name and pressing Tab causes the command to be displayed in full, or to the point where another keyword must be chosen or an argument value must be entered.

Viewing the Properties, Targets, and Verbs

The **show** command displays the SMASH CLP properties, targets, and verbs that are available at each level. To view the properties, targets, and verbs, perform this task:

	Command	Purpose
Step 1	`/admin1-> show`	Displays the CLP properties, targets, and verbs.

This example shows how to view the CLP properties, targets, and verbs:

```
/admin1-> show
/admin1
        properties
                ElementName = SM CLP Admin Domain
        targets
                hdwr1
                profiles1
                system1
        verbs
```

```
                cd
                show
                help
                version
/admin1->
```

Navigating to CLP Objects

The **cd** command allows you to navigate to SMASH CLP targets. To navigate to a target, perform this task:

	Command	Purpose
Step 1	`/admin1-> cd target`	Displays the CLP commands and options.

This example shows how to navigate from the root level to the profiles1 target:

```
/admin1-> cd profiles1
/admin1/profiles1->
```

Configuring a CLP Property

The **set** command allows you to change a configurable SMASH CLP property. To configure a property, perform this task:

	Command	Purpose
Step 1	`/admin1-> cd target`	Navigates to the target.
Step 2	`/admin1/target-> set property=value`	Configures a new value for the property.

This example shows how to change the ActivationState property of the indicator LED:

```
/admin1-> cd /admin1/system1/leds1/identifyled1
/admin1/system1/leds1/identifyled1-> set ActivationState=3
        activationstate=3
/admin1/system1/leds1/identifyled1->
```

Task Examples

This section contains the following examples:

- Configuring a Sensor Threshold, page 2-4
- Setting the Indicator LED, page 2-4
- Clearing the System Event Log, page 2-4
- Controlling System Power, page 2-5

Configuring a Sensor Threshold

To configure a sensor threshold, perform this task:

	Command	Purpose
Step 1	/admin1-> **cd** *target*	Navigates to the target.
Step 2	/admin1/*target*-> **set** *property*=*value*	Configures a new value for the property.

This example shows how to configure a sensor threshold:

```
/admin1-> cd /admin1/system1/sensors1/numsensor1
/admin1/system1/sensors1/numsensor1-> set LowerThresholdCritical=20000
        lowerthresholdcritical=19932
/admin1/system1/sensors1/numsensor1->
```

Note Because some properties have limited resolution, the actual resulting value may be slightly different from the value specified in the **set** command, as in this example.

Setting the Indicator LED

To set the indicator LED, perform this task:

	Command	Purpose
Step 1	/admin1-> **cd /admin1/system1/leds1/identifyled1**	Navigates to the indicator LED object.
Step 2	/admin1/*target*-> **set ActivationState=3**	Configures a new value for the Activation State property.

This example shows how to set the indicator LED by changing the Activation State to 3:

```
/admin1-> cd /admin1/system1/leds1/identifyled1
/admin1/system1/leds1/identifyled1-> set ActivationState=3
        activationstate=3
/admin1/system1/leds1/identifyled1->
```

Clearing the System Event Log

The **reset** command allows you to clear the system event log (SEL). To clear the SEL, perform this task:

	Command	Purpose
Step 1	/admin1-> **cd /admin1/system1/log1**	Navigates to the SEL.
Step 2	/admin1/system1/log1-> **reset**	Clears the SEL.

This example shows how to clear the SEL:

```
/admin1-> cd /admin1/system1/log1
/admin1/system1/log1-> reset
/admin1/system1/log1 reset at Tue Jun 1 11:43:54 2010
```

```
/admin1/system1/log1->
```

Controlling System Power

A set of power commands allows you to stop, start, and reset the server power. To control the server power, perform one of these tasks:

	Command	Purpose
Step 1	`/admin1-> cd /admin1/system1`	Navigates to the system1 target.
Step 2	`/admin1/system1-> start`	Sets the powerstate to 2 (On).
	`/admin1/system1-> reset`	Sets the powerstate to 5 (Power Cycle (Off-Soft)).
	`/admin1/system1-> stop -f`	Sets the powerstate to 8 (Off-Soft).
	`/admin1/system1-> stop`	Sets the powerstate to 12 (Off-Soft Graceful).

This example shows how to gracefully turn off the server power:

```
/admin1-> cd /admin1/system1
/admin1/system1-> stop
/admin1/system1 stopped at Wed Jun  2 07:31:15 2010
/admin1/system1->
```

CHAPTER 3

Accessing and Using WS-Management

This chapter describes how to access the SMASH Web Services interface (WS-Management) and provides limited information about its use. For detailed information about using the SMASH WS-Management tool, see the DMTF documentation at this URL:

http://www.dmtf.org/standards/mgmt/smash

This chapter contains the following topics:

- Obtaining and Installing a WS-Management Client, page 3-1
- Configuring WinRM, page 3-2
- Viewing the Available Commands, page 3-2
- Command Structure, page 3-3
- Task Examples, page 3-4

Obtaining and Installing a WS-Management Client

To use WS-Management, you must obtain and install a WS-Management client for your operating system. Free clients are available for common operating systems, including Windows, Macintosh OS X, and Linux.

For this guide, we will use Microsoft Windows Remote Management (WinRM) as an example. WinRM is included with current Windows desktop and server versions, and is available as a download from Microsoft for selected earlier versions. Refer to Microsoft's documentation for instructions on obtaining and installing the appropriate version of WinRM for your client computer.

After installation, WinRM can be run from a Windows command prompt in any directory. To test the installation, enter the **winrm id** command at the Windows command prompt. The command output should appear as in the following example:

```
C:\> winrm id
IdentifyResponse
    ProtocolVersion = http://schemas.dmtf.org/wbem/wsman/1/wsman.xsd
    ProductVendor = Microsoft Corporation
    ProductVersion = OS: 5.1.2600 SP: 2.0 Stack: 1.1
```

Configuring WinRM

By default, WinRM has the following restrictions:

- Requires a secure connection (https)
- Disallows basic authentication
- Trusts no host

You must configure the client to allow unencrypted communication and basic authentication, and to trust certain hosts for unencrypted communication. To make these configuration changes, enter the following commands at the Windows command prompt:

```
winrm set winrm/config/client/auth @{Basic="true"}
winrm set winrm/config/client  @{AllowUnencrypted="true"}
winrm set winrm/config/client  @{TrustedHosts="*"}
```

This example shows how to verify the configuration:

```
C:\> winrm get winrm/config/client
Client
    NetworkDelayms = 5000
    URLPrefix = wsman
    AllowUnencrypted = true
    Auth
        Basic = true
        Digest = true
        Kerberos = true
        Negotiate = true
        Certificate = true
    DefaultPorts
        HTTP = 80
        HTTPS = 443
    TrustedHosts = *
C:\>
```

Viewing the Available Commands

To display the WinRM command options, enter the **winrm** command at the Windows command prompt, as in the following example:

```
C:\>winrm
Windows Remote Management Command Line Tool

Windows Remote Management (WinRM) is the Microsoft implementation of
the WS-Management protocol which provides a secure way to communicate
with local and remote computers using web services.

Usage:
  winrm OPERATION RESOURCE_URI [-SWITCH:VALUE [-SWITCH:VALUE] ...]
        [@{KEY=VALUE[;KEY=VALUE]...}]

For help on a specific operation:
  winrm g[et] -?        Retrieving management information.
  winrm s[et] -?        Modifying management information.
  winrm c[reate] -?     Creating new instances of management resources.
  winrm d[elete] -?     Remove an instance of a management resource.
  winrm e[numerate] -?  List all instances of a management resource.
  winrm i[nvoke] -?     Executes a method on a management resource.
```

```
  winrm id[entify] -?   Determines if a WS-Management implementation is
                        running on the remote machine.
  winrm quickconfig -?  Configures this machine to accept WS-Management
                        requests from other machines.
  winrm configSDDL -?   Modify an existing security descriptor for a URI.
  winrm helpmsg -?      Displays error message for the error code.

For help on related topics:
  winrm help uris       How to construct resource URIs.
  winrm help aliases    Abbreviations for URIs.
  winrm help config     Configuring WinRM client and service settings.
  winrm help certmapping Configuring client certificate access.
  winrm help customremoteshell     Configures a shell executable and
                        arguments corresponding to a shell URI.
  winrm help remoting   How to access remote machines.
  winrm help auth       Providing credentials for remote access.
  winrm help input      Providing input to create, set, and invoke.
  winrm help switches   Other switches such as formatting, options, etc.
```

Tip The output of the **winrm** command lists many other help options. Explore these additional options for detailed information about WinRM commands.

Command Structure

The following example shows a typical **winrm get** command:

```
C:\> winrm get
cimv2/CCIM_IndicatorLED?SystemCreationClassName=CCIM_ComputerSystem+SystemName=srv:1+Creat
ionClassName=CCIM_IndicatorLED+DeviceID=LED_FPID  -r:https://192.0.20.137:443  -a:Basic
-u:admin -p:password -encoding:utf-8 -f:text  -skipCAcheck -skipCNcheck
```

The following table describes the fields of this command:

Field	Description
winrm	The main **winrm** command.
get	This command is a GET CIM Object instance WSMAN operation, which retrieves management information.
cimv2/	The cimv2 path is an alias to the full resource URI that we are trying to retrieve. In this case, it is an alias for a DMTF CIM schema. For more information, enter the **winrm help aliases** command.
CCIM_IndicatorLED?	This is the object whose properties are being queried.
SystemCreationClassName=CCIM_ComputerSystem	The first of four object identification keys.
+	The + operator links multiple instances of key=value pairs.
SystemName=srv:1	The second of four object identification keys.
CreationClassName=CCIM_IndicatorLED	The third of four object identification keys.
DeviceID=LED_FPID	The last of four object identification keys.

Field	Description
`-r:https://192.0.20.137:443`	The resource URI. Specifies an HTTP secure connection to the server at the given IP address at port 443. For more information, enter the **winrm help remoting** command.
`-a:Basic`	Basic authentication will be used for the server connection. For more information, enter the **winrm help auth** command.
`-u:admin`	The username for logging in with basic authentication.
`-p:password`	The password for logging in with basic authentication.
`-encoding:utf-8`	Data exchanged with the server will be in UTF-8 enconding. For more information on this field and the remaining fields, enter the **winrm help switches** command.
`-f:text`	The format of data exchanged with the server will be formatted as text.
`-skipCAcheck`	The SSL certificate authority (CA) of the server need not be a trusted root authority.
`-skipCNcheck`	The SSL common name (CN) of the server need not match the hostname of the server.

Task Examples

This section contains the following examples:

- Configuring a Battery Sensor Threshold, page 3-4
- Configuring a Chassis Locator LED, page 3-8
- Viewing and Clearing the System Event Log, page 3-11
- Performing a Power Control Operation, page 3-13

Configuring a Battery Sensor Threshold

This example reads the 3 volt battery sensor status, sets the LowerThresholdCritical property to a new value of 2000, and reads the sensor again to verify the new value (in this example, the value is shown in **bold** for readability):

```
C:\> winrm get
cimv2/CCIM_NumericSensor?CreationClassName=CCIM_NumericSensor+DeviceID=0.0.20.1+SystemName
=srv:1+SystemCreationClassName=CCIM_ComputerSystem -r:https://192.0.20.137 -a:Basic
-u:admin -p:password -encoding:utf-8 -f:text -skipCNcheck -skipCAcheck

CCIM_NumericSensor
    Accuracy = null
    AccuracyUnits = null
    AdditionalAvailability = null
    Availability = null
```

```
    AvailableRequestedStates = null
    BaseUnits = 5
    Caption = null
    CommunicationStatus = null
    CreationClassName = CCIM_NumericSensor
    CurrentReading = 30096
    CurrentState = Normal
    Description = null
    DetailedStatus = null
    DeviceID = 0.0.20.1
    ElementName = P3V_BAT_SCALED(0.0.20)
    EnabledDefault = 2
    EnabledState = 1
    EnabledThresholds = null
    ErrorCleared = null
    ErrorDescription = null
    HealthState = 5
    Hysteresis = null
    IdentifyingDescriptions = null
    InstallDate = null
    IsLinear = null
    LastErrorCode = null
    LocationIndicator = null
    LowerThresholdCritical = 21780
    LowerThresholdFatal = 19932
    LowerThresholdNonCritical = 0
    MaxQuiesceTime = null
    MaxReadable = null
    MinReadable = null
    Name = null
    NominalReading = null
    NormalMax = null
    NormalMin = null
    OperatingStatus = null
    OperationalStatus = 2
    OtherEnabledState = null
    OtherIdentifyingInfo = null
    OtherSensorTypeDescription = null
    PollingInterval = null
    PossibleStates = Normal, Upper Fatal, Upper Critical, Upper Non-Critical, Lower Fatal,
Lower Critical, Lower Non-Critical, Unknown
    PowerManagementCapabilities = null
    PowerManagementSupported = null
    PowerOnHours = null
    PrimaryStatus = 1
    ProgrammaticAccuracy = null
    RateUnits = 0
    RequestedState = 12
    Resolution = null
    SensorType = 3
    SettableThresholds = 2, 3, 4
    Status = null
    StatusDescriptions = null
    StatusInfo = null
    SupportedThresholds = 2, 3, 4
    SystemCreationClassName = CCIM_ComputerSystem
    SystemName = srv:1
    TimeOfLastStateChange = null
    Tolerance = null
    TotalPowerOnHours = null
    TransitioningToState = 12
    UnitModifier = -4
    UpperThresholdCritical = 33000
    UpperThresholdFatal = 0
```

```
    UpperThresholdNonCritical = 0
    ValueFormulation = 2

C:\> winrm set
cimv2/CCIM_NumericSensor?CreationClassName=CCIM_NumericSensor+DeviceID=0.0.20.1+SystemName
=srv:1+SystemCreationClassName=CCIM_ComputerSystem -r:https://192.0.20.137 -a:Basic
-u:admin -p:password -encoding:utf-8 -f:text -skipCNcheck -skipCAcheck
@{LowerThresholdCritical="2000"}

CCIM_NumericSensor
    Accuracy = null
    AccuracyUnits = null
    AdditionalAvailability = null
    Availability = null
    AvailableRequestedStates = null
    BaseUnits = 5
    Caption = null
    CommunicationStatus = null
    CreationClassName = CCIM_NumericSensor
    CurrentReading = 30096
    CurrentState = Normal
    Description = null
    DetailedStatus = null
    DeviceID = 0.0.20.1
    ElementName = P3V_BAT_SCALED(0.0.20)
    EnabledDefault = 2
    EnabledState = 1
    EnabledThresholds = null
    ErrorCleared = null
    ErrorDescription = null
    HealthState = 5
    Hysteresis = null
    IdentifyingDescriptions = null
    InstallDate = null
    IsLinear = null
    LastErrorCode = null
    LocationIndicator = null
    LowerThresholdCritical = 2000
    LowerThresholdFatal = 19932
    LowerThresholdNonCritical = 0
    MaxQuiesceTime = null
    MaxReadable = null
    MinReadable = null
    Name = null
    NominalReading = null
    NormalMax = null
    NormalMin = null
    OperatingStatus = null
    OperationalStatus = 2
    OtherEnabledState = null
    OtherIdentifyingInfo = null
    OtherSensorTypeDescription = null
    PollingInterval = null
    PossibleStates = Normal, Upper Fatal, Upper Critical, Upper Non-Critical, Lower Fatal,
Lower Critical, Lower Non-Critical, Unknown
    PowerManagementCapabilities = null
    PowerManagementSupported = null
    PowerOnHours = null
    PrimaryStatus = 1
    ProgrammaticAccuracy = null
    RateUnits = 0
    RequestedState = 12
    Resolution = null
    SensorType = 3
```

```
    SettableThresholds = 2, 3, 4
    Status = null
    StatusDescriptions = null
    StatusInfo = null
    SupportedThresholds = 2, 3, 4
    SystemCreationClassName = CCIM_ComputerSystem
    SystemName = srv:1
    TimeOfLastStateChange = null
    Tolerance = null
    TotalPowerOnHours = null
    TransitioningToState = 12
    UnitModifier = -4
    UpperThresholdCritical = 33000
    UpperThresholdFatal = 0
    UpperThresholdNonCritical = 0
    ValueFormulation = 2

C:\> winrm get
cimv2/CCIM_NumericSensor?CreationClassName=CCIM_NumericSensor+DeviceID=0.0.20.1+SystemName
=srv:1+SystemCreationClassName=CCIM_ComputerSystem -r:https://192.0.20.137 -a:Basic
-u:admin -p:password -encoding:utf-8 -f:text -skipCNcheck -skipCAcheck

CCIM_NumericSensor
    Accuracy = null
    AccuracyUnits = null
    AdditionalAvailability = null
    Availability = null
    AvailableRequestedStates = null
    BaseUnits = 5
    Caption = null
    CommunicationStatus = null
    CreationClassName = CCIM_NumericSensor
    CurrentReading = 30096
    CurrentState = Normal
    Description = null
    DetailedStatus = null
    DeviceID = 0.0.20.1
    ElementName = P3V_BAT_SCALED(0.0.20)
    EnabledDefault = 2
    EnabledState = 1
    EnabledThresholds = null
    ErrorCleared = null
    ErrorDescription = null
    HealthState = 5
    Hysteresis = null
    IdentifyingDescriptions = null
    InstallDate = null
    IsLinear = null
    LastErrorCode = null
    LocationIndicator = null
    LowerThresholdCritical = 1980
    LowerThresholdFatal = 19932
    LowerThresholdNonCritical = 0
    MaxQuiesceTime = null
    MaxReadable = null
    MinReadable = null
    Name = null
    NominalReading = null
    NormalMax = null
    NormalMin = null
    OperatingStatus = null
    OperationalStatus = 2
    OtherEnabledState = null
    OtherIdentifyingInfo = null
```

```
    OtherSensorTypeDescription = null
    PollingInterval = null
    PossibleStates = Normal, Upper Fatal, Upper Critical, Upper Non-Critical, Lower Fatal,
Lower Critical, Lower Non-Critical, Unknown
    PowerManagementCapabilities = null
    PowerManagementSupported = null
    PowerOnHours = null
    PrimaryStatus = 1
    ProgrammaticAccuracy = null
    RateUnits = 0
    RequestedState = 12
    Resolution = null
    SensorType = 3
    SettableThresholds = 2, 3, 4
    Status = null
    StatusDescriptions = null
    StatusInfo = null
    SupportedThresholds = 2, 3, 4
    SystemCreationClassName = CCIM_ComputerSystem
    SystemName = srv:1
    TimeOfLastStateChange = null
    Tolerance = null
    TotalPowerOnHours = null
    TransitioningToState = 12
    UnitModifier = -4
    UpperThresholdCritical = 33000
    UpperThresholdFatal = 0
    UpperThresholdNonCritical = 0
    ValueFormulation = 2
```

Note Because some properties have limited resolution, the actual resulting value may be slightly different from the value specified in the **set** command, as in this example.

Configuring a Chassis Locator LED

This example reads the current status of the chassis locator LED, turns the LED on by changing the Activation State from 4 to 3, and verifies the new status:

```
C:\> winrm get
cimv2/CCIM_IndicatorLED?SystemCreationClassName=CCIM_ComputerSystem+SystemName=srv:1+Creat
ionClassName=CCIM_IndicatorLED+DeviceID=LED_FPID -r:https://192.0.20.137:443 -a:Basic
-u:admin -p:password -encoding:utf-8 -f:text -skipCAcheck -skipCNcheck

CCIM_IndicatorLED
    ActivationState = 4
    AdditionalAvailability = null
    Availability = null
    AvailableRequestedStates = null
    Caption = null
    Color = 6
    CommunicationStatus = null
    ControlMode = 3
    ControlPattern = null
    CreationClassName = CCIM_IndicatorLED
    DefaultActivationState = 4
    Description = null
    DetailedStatus = null
    DeviceID = LED_FPID
    ElementName = Chassis Identify LED
```

```
    EnabledDefault = 2
    EnabledState = 5
    ErrorCleared = null
    ErrorDescription = null
    HealthState = null
    IdentifyingDescriptions = null
    IndicatedConditions = 3
    InstallDate = null
    LastErrorCode = null
    LocationIndicator = null
    MaxQuiesceTime = null
    Name = null
    OperatingStatus = null
    OperationalStatus = null
    OtherColorDescription = null
    OtherEnabledState = null
    OtherIdentifyingInfo = null
    OtherIndicatedConditionDescription = null
    PowerManagementCapabilities = null
    PowerManagementSupported = null
    PowerOnHours = null
    PrimaryStatus = null
    RequestedState = 12
    Status = null
    StatusDescriptions = null
    StatusInfo = null
    SystemCreationClassName = CCIM_ComputerSystem
    SystemName = srv:1
    TimeOfLastStateChange = null
    TotalPowerOnHours = null
    TransitioningToState = 12

C:\> winrm set
cimv2/CCIM_IndicatorLED?SystemCreationClassName=CCIM_ComputerSystem+SystemName=srv:1+Creat
ionClassName=CCIM_IndicatorLED+DeviceID=LED_FPID -r:https://192.0.20.137:443 -a:Basic
-u:admin -p:password -encoding:utf-8 -f:text -skipCAcheck -skipCNcheck
@{ActivationState="3"}

CCIM_IndicatorLED
    ActivationState = 3
    AdditionalAvailability = null
    Availability = null
    AvailableRequestedStates = null
    Caption = null
    Color = 6
    CommunicationStatus = null
    ControlMode = 3
    ControlPattern = null
    CreationClassName = CCIM_IndicatorLED
    DefaultActivationState = 4
    Description = null
    DetailedStatus = null
    DeviceID = LED_FPID
    ElementName = Chassis Identify LED
    EnabledDefault = 2
    EnabledState = 5
    ErrorCleared = null
    ErrorDescription = null
    HealthState = null
    IdentifyingDescriptions = null
    IndicatedConditions = 3
    InstallDate = null
    LastErrorCode = null
    LocationIndicator = null
```

```
    MaxQuiesceTime = null
    Name = null
    OperatingStatus = null
    OperationalStatus = null
    OtherColorDescription = null
    OtherEnabledState = null
    OtherIdentifyingInfo = null
    OtherIndicatedConditionDescription = null
    PowerManagementCapabilities = null
    PowerManagementSupported = null
    PowerOnHours = null
    PrimaryStatus = null
    RequestedState = 12
    Status = null
    StatusDescriptions = null
    StatusInfo = null
    SystemCreationClassName = CCIM_ComputerSystem
    SystemName = srv:1
    TimeOfLastStateChange = null
    TotalPowerOnHours = null
    TransitioningToState = 12

C:\> winrm get
cimv2/CCIM_IndicatorLED?SystemCreationClassName=CCIM_ComputerSystem+SystemName=srv:1+Creat
ionClassName=CCIM_IndicatorLED+DeviceID=LED_FPID -r:https://192.0.20.137:443 -a:Basic
-u:admin -p:password -encoding:utf-8 -f:text -skipCAcheck -skipCNcheck

CCIM_IndicatorLED
    ActivationState = 3
    AdditionalAvailability = null
    Availability = null
    AvailableRequestedStates = null
    Caption = null
    Color = 6
    CommunicationStatus = null
    ControlMode = 3
    ControlPattern = null
    CreationClassName = CCIM_IndicatorLED
    DefaultActivationState = 4
    Description = null
    DetailedStatus = null
    DeviceID = LED_FPID
    ElementName = Chassis Identify LED
    EnabledDefault = 2
    EnabledState = 5
    ErrorCleared = null
    ErrorDescription = null
    HealthState = null
    IdentifyingDescriptions = null
    IndicatedConditions = 3
    InstallDate = null
    LastErrorCode = null
    LocationIndicator = null
    MaxQuiesceTime = null
    Name = null
    OperatingStatus = null
    OperationalStatus = null
    OtherColorDescription = null
    OtherEnabledState = null
    OtherIdentifyingInfo = null
    OtherIndicatedConditionDescription = null
    PowerManagementCapabilities = null
    PowerManagementSupported = null
    PowerOnHours = null
```

```
    PrimaryStatus = null
    RequestedState = 12
    Status = null
    StatusDescriptions = null
    StatusInfo = null
    SystemCreationClassName = CCIM_ComputerSystem
    SystemName = srv:1
    TimeOfLastStateChange = null
    TotalPowerOnHours = null
    TransitioningToState = 12
```

Viewing and Clearing the System Event Log

This example reads the system event log (SEL) entries, reads the log details, clears the log, and reads the log details again:

```
C:\> winrm Enumerate cimv2/CCIM_SELLogEntry -r:https://192.0.20.137:443 -a:Basic -u:admin
-p:password -encoding:utf-8 -f:text -skipCAcheck -skipCNcheck

CCIM_SELLogEntry
    Caption = null
    CreationTimeStamp = 20100607145556.000000+000
    Description = null
    ElementName = System Event Log Entry
    InstanceID = CCIM:SEL:Entry:1
    Locale = null
    LogInstanceID = CCIM:SEL:1
    LogName = System Event Log
    Message = null
    MessageArguments = null
    MessageID = null
    OwningEntity = null
    RecordData = *1*LED_FPID: Platform sensor, OFF event was asserted
    RecordFormat = *string Severity*string Description
    RecordID = 1

CCIM_SELLogEntry
    Caption = null
    CreationTimeStamp = 20100607145600.000000+000
    Description = null
    ElementName = System Event Log Entry
    InstanceID = CCIM:SEL:Entry:2
    Locale = null
    LogInstanceID = CCIM:SEL:1
    LogName = System Event Log
    Message = null
    MessageArguments = null
    MessageID = null
    OwningEntity = null
    RecordData = *1*LED_FPID: Platform sensor, FAST BLINK event was asserted
    RecordFormat = *string Severity*string Description
    RecordID = 2

C:\> winrm get
"http://schemas.cisco.com/wbem/wscim/1/cim-schema/2/CCIM_SELRecordLog?InstanceID=CCIM:SEL:
1" -r:https://192.0.20.137:443 -a:Basic -u:admin -p:password -encoding:utf-8 -f:text
-skipCAcheck -skipCNcheck

CCIM_SELRecordLog
    AvailableRequestedStates = null
    Caption = null
```

```
    CommunicationStatus = null
    CurrentNumberOfRecords = 2
    Description = null
    DetailedStatus = null
    ElementName = System Event Log
    EnabledDefault = 2
    EnabledState = 2
    HealthState = 5
    InstallDate = null
    InstanceID = CCIM:SEL:1
    LogState = 2
    MaxNumberOfRecords = 3008
    Name = null
    OperatingStatus = null
    OperationalStatus = 2
    OtherEnabledState = null
    OverwritePolicy = 7
    PrimaryStatus = null
    RequestedState = 12
    Status = null
    StatusDescriptions = null
    TimeOfLastStateChange = null
    TransitioningToState = 12

C:\> winrm invoke ClearLog
"http://schemas.cisco.com/wbem/wscim/1/cim-schema/2/CCIM_SELRecordLog?InstanceID=CCIM:SEL:
1"  -r:https://192.0.20.137:443 -a:Basic -u:admin -p:password -encoding:utf-8 -f:text
-skipCAcheck -skipCNcheck

ClearLog_OUTPUT
    ReturnValue = 0

C:\> winrm get
"http://schemas.cisco.com/wbem/wscim/1/cim-schema/2/CCIM_SELRecordLog?InstanceID=CCIM:SEL:
1"  -r:https://192.0.20.137:443 -a:Basic -u:admin -p:password -encoding:utf-8 -f:text
-skipCAcheck -skipCNcheck

CCIM_SELRecordLog
    AvailableRequestedStates = null
    Caption = null
    CommunicationStatus = null
    CurrentNumberOfRecords = 0
    Description = null
    DetailedStatus = null
    ElementName = System Event Log
    EnabledDefault = 2
    EnabledState = 2
    HealthState = 5
    InstallDate = null
    InstanceID = CCIM:SEL:1
    LogState = 2
    MaxNumberOfRecords = 3008
    Name = null
    OperatingStatus = null
    OperationalStatus = 2
    OtherEnabledState = null
    OverwritePolicy = 7
    PrimaryStatus = null
    RequestedState = 12
    Status = null
    StatusDescriptions = null
    TimeOfLastStateChange = null
    TransitioningToState = 12
```

Performing a Power Control Operation

This example queries the system power management capabilities with a WinRM **enumerate** command, displays an XML file containing the desired power control changes, and invokes the changes by applying the XML file with a WinRM **invoke** command:

```
C:\> winrm enumerate cimv2/CCIM_CSPowerManagementCapabilities -r:https://192.0.20.137:443
-a:Basic -u:admin -p:password -encoding:utf-8 -f:text -skipCAcheck -skipCNcheck

CCIM_CSPowerManagementCapabilities
    Caption = null
    Description = null
    ElementName = Power Management Capabilities
    InstanceID = CCIM:pwrmgtcap1
    OtherPowerCapabilitiesDescriptions = null
    OtherPowerChangeCapabilities = null
    PowerCapabilities = null
    PowerChangeCapabilities = 3, 4, 7, 8
    PowerStatesSupported = 2, 5, 8, 10, 11, 12

C:\> type pwrcntrl_req.xml

<p:RequestPowerStateChange_INPUT
xmlns:p='http://schemas.cisco.com/wbem/wscim/1/cim-schema/2/CCIM_CSPowerManagementService'
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing"
xmlns:wsman="http://schemas.dmtf.org/wbem/wsman/1/wsman.xsd">
<p:ManagedElement>
<wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
<wsa:ReferenceParameters>
<wsman:ResourceURI>http://schemas.cisco.com/wbem/wscim/1/cim-schema/2/CCIM_ComputerSystem<
/wsman:ResourceURI>
<wsman:SelectorSet>
<wsman:Selector Name="Name">srv:1</wsman:Selector>
<wsman:Selector Name="CreationClassName">CCIM_ComputerSystem</wsman:Selector>
</wsman:SelectorSet>
</wsa:ReferenceParameters>
</p:ManagedElement>
<p:PowerState>5</p:PowerState>
<p:Time>00000000000000.000000:000</p:Time>
<p:TimeoutPeriod>00000000000000.000000:000</p:TimeoutPeriod>
</p:RequestPowerStateChange_INPUT>

C:\> winrm invoke RequestPowerStateChange
"cimv2/CCIM_CSPowerManagementService?CreationClassName=CCIM_CSPowerManagementService+Name=
pwrmgtsvc:1+SystemName=CIMC:1+SystemCreationClassName=CCIM_SPComputerSystem"
-r:https://192.0.20.137:443 -a:Basic -u:admin -p:password -encoding:utf-8 -f:pretty
-skipCAcheck -skipCNcheck -file:pwrcntrl_req.xml

<n1:RequestPowerStateChange_OUTPUT
xmlns:n1="http://schemas.dmtf.org/wbem/wscim/1/cim-schema/2/CCIM_CSPowerManagementService"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <n1:Job xsi:nil="true"></n1:Job>
    <n1:ReturnValue>2</n1:ReturnValue>
</n1:RequestPowerStateChange_OUTPUT>
```

CHAPTER 4

Supported Profiles

This chapter describes the SMASH profiles supported by the Cisco UCS Servers. Profile specifications are available from the DMTF at this URL:

http://www.dmtf.org/standards/profiles

This chapter contains the following topics:

- Base Server Profile, page 4-1
- CLP Admin Domain Profile, page 4-2
- CLP Service Profile, page 4-2
- CPU Profile, page 4-3
- Fan Profile, page 4-4
- Indicator LED Profile, page 4-4
- Physical Asset Profile, page 4-5
- Power State Management Profile, page 4-6
- Power Supply Profile, page 4-6
- Profile Registration Profile, page 4-7
- Record Log Profile, page 4-7
- Sensors Profile, page 4-8
- Service Processor Profile, page 4-8
- System Memory Profile, page 4-9

Base Server Profile

The specification for this profile can be found at this URL:

http://www.dmtf.org/standards/published_documents/DSP1004_1.0.1.pdf

This profile supports the following classes:

Cisco Class	CIM Class
CCIM_ComputerSystem	CIM_ComputerSystem
CCIM_SystemDevice	CIM_SystemDevice
CCIM_CSEnabledLogicalElementCapabilities	CIM_EnabledLogicalElementCapabilities

Cisco Class	CIM Class
CCIM_ComputerSystemPackage	CIM_ComputerSystemPackage
CCIM_CSElementCapabilities	CIM_ElementCapabilities
CCIM_Chassis	CIM_Chassis
CCIM_CSOwningCollectionElement	CIM_OwningCollectionElement
CCIM_CSCapabilitiesConcreteCollection	CIM_ConcreteCollection
CCIM_CSCapabilitiesMemberOfCollection	CIM_MemberOfCollection

Modifiable Properties

The following properties of this profile can be modified:

Property	Class	Required User Role
RequestStateChange	CCIM_ComputerSystem	user or admin

CLP Admin Domain Profile

The specification for this profile can be found at this URL:

http://www.dmtf.org/standards/published_documents/DSP1007_1.0.0.pdf

This profile supports the following classes:

Cisco Class	CIM Class
CCIM_AdminDomain	CIM_AdminDomain
CCIM_HardwareConcreteCollection	CIM_ConcreteCollection
CCIM_SMCLPADHardwareMemberOfCollection	CIM_MemberOfCollection
CCIM_SMCLPADOwningCollectionElement	CIM_OwningCollectionElement
CCIM_SMCLPADSystemComponent	CIM_SystemComponent
CCIM_ADMProfilesOwningCollectionElement	CIM_OwningCollectionElement
CCIM_ADMProfilesMemberOfCollection	CIM_MemberOfCollection
CCIM_ADMProfilesConcreteCollection	CIM_ConcreteCollection

CLP Service Profile

The specification for this profile can be found at this URL:

http://www.dmtf.org/standards/published_documents/DSP1005_1.0.1.pdf

This profile supports the following classes:

Cisco Class	CIM Class
CCIM_CLPProtocolEndpoint	CIM_CLPProtocolEndpoint
CCIM_CLPConcreteJob	CIM_ConcreteJob
CCIM_CLPProtocolService	CIM_ProtocolService

Cisco Class	CIM Class
CCIM_TCPEndPoint	CIM_TCPProtocolEndpoint
CCIM_CLPSettingData	CIM_CLPSettingData
CCIM_CLPJobQueue	CIM_JobQueue
CCIM_CLPCapabilities	CIM_CLPCapabilities
CCIM_CLPJobDestinationJobs	CIM_JobDestinationJobs
CCIM_CLPEndpointOwningJobElement	CIM_OwningJobElement
CCIM_CLPServiceOwningJobElement	CIM_OwningJobElement
CCIM_CLPProvidesEndpoint	CIM_ProvidesEndpoint
CCIM_HostedCLPAccessPoint	CIM_HostedAccessPoint
CCIM_SPHostedJobDestination	CIM_HostedJobDestination
CCIM_CLPElementSettingData	CIM_ElementSettingData
CCIM_CLPServiceAffectsJobQueue	CIM_ServiceAffectsElement
CCIM_CLPElementCapabilities	CIM_ElementCapabilities
CCIM_CLPServiceAffectsAdminDomain	CIM_ServiceAffectsElement
CCIM_HostedTCPAccessPoint	CIM_HostedAccessPoint
CCIM_CLPAccessByTCP	CCIM_CLPAccessByTCP

Modifiable Properties

The following properties of this profile can be modified:

Property	Class	Required User Role
RequestStateChange	CCIM_CLPConcreteJob	user or admin
GetError	CCIM_CLPConcreteJob	user or admin

CPU Profile

The specification for this profile can be found at this URL:

http://www.dmtf.org/standards/published_documents/DSP1022_1.0.1.pdf

This profile supports the following classes:

Cisco Class	CIM Class
CCIM_Processor	CIM_Processor
CCIM_ProcessorCapabilities	CIM_ProcessorCapabilities
CCIM_ProcessorCollection	CIM_ConcreteCollection
CCIM_ProcessorElementCapabilities	CIM_ElementCapabilities
CCIM_ProcessorMemberOfCollection	CIM_MemberOfCollection

Fan Profile

The specification for this profile can be found at this URL:

http://www.dmtf.org/standards/published_documents/DSP1013_1.0.1.pdf

This profile supports the following classes:

Cisco Class	CIM Class
CCIM_Fan	CIM_Fan
CCIM_FanRedundancySet	CIM_RedundancySet
CCIM_FanMemberOfCollection	CIM_MemberOfCollection
CCIM_AssociatedCooling	CIM_AssociatedCooling
CCIM_FanOwningCollectionElement	CIM_OwningCollectionElement
CCIM_CSHostedFanRedundancy	CIM_HostedCollection
CCIM_FanSetCollection	CIM_ConcreteCollection
CCIM_FanSetMemberOfCollection	CIM_MemberOfCollection
CCIM_OwningFanSetCollectionElement	CIM_OwningCollectionElement

Indicator LED Profile

The specification for this profile can be found at this URL:

http://www.dmtf.org/standards/published_documents/DSP1074_1.0.0.pdf

This profile supports the following classes:

Cisco Class	CIM Class
CCIM_IndicatorLED	CIM_IndicatorLED
CCIM_IndicatorLEDCapabilities	CIM_IndicatorLEDCapabilities
CCIM_AssociatedIndicatorLED	CIM_AssociatedIndicatorLED
CCIM_LEDElementCapabilities	CIM_ElementCapabilities
CCIM_FaultDiagnosisLED	CIM_IndicatorLED
CCIM_FaultDiagnosisLEDCapabilities	CIM_IndicatorLEDCapabilities
CCIM_LEDCollection	CIM_ConcreteCollection
CCIM_LEDMemberOfCollection	CIM_MemberOfCollection

Modifiable Properties

The following properties of this profile can be modified:

Property	Class	Required User Role
ActivationState	CCIM_IndicatorLED	user or admin

Physical Asset Profile

The specification for this profile can be found at this URL:

http://www.dmtf.org/standards/published_documents/DSP1011_1.0.2.pdf

This profile supports the following classes:

Cisco Class	CIM Class
CCIM_PhysicalAssetCapabilities	CIM_PhysicalAssetCapabilities
CCIM_CPUChip	CIM_Chip
CCIM_CPUSlot	CIM_Slot
CCIM_BaseBoard	CIM_Card
CCIM_MemoryRiser	CIM_Card
CCIM_MemoryRiserSlot	CIM_Slot
CCIM_MemorySlot	CIM_Slot
CCIM_ChassisFanPhysicalComponent	CIM_PhysicalComponent
CCIM_ChassisFanSlot	CIM_Slot
CCIM_PowerSupplyPhysicalComponent	CIM_PhysicalComponent
CCIM_PowerSupplySlot	CIM_Slot
CCIM_StoragePhysicalComponent	CIM_PhysicalComponent
CCIM_StorageSlot	CIM_Slot
CCIM_PhysicalAssetElementCapabilities	—
CCIM_ChassisContainer	CIM_Container
CCIM_BaseBoardContainer	CIM_Container
CCIM_MemoryRiserContainer	CIM_Container
CCIM_ChassisFanInSlot	CIM_PackageInConnector
CCIM_PowerSupplyInSlot	CIM_PackageInConnector
CCIM_StorageInSlot	CIM_PackageInConnector
CCIM_CPUInSlot	CIM_PackageInConnector
CCIM_MemoryRiserInSlot	CIM_PackageInConnector
CCIM_MemoryInSlot	CIM_PackageInConnector
CCIM_ChassisFanRealizes	CIM_Realizes
CCIM_CPURealizes	CIM_RealizesProcessor
CCIM_PowerSupplyRealizes	CIM_Realizes

Power State Management Profile

The specification for this profile can be found at this URL:

http://www.dmtf.org/standards/published_documents/DSP1027_1.0.1.pdf

This profile supports the following classes:

Cisco Class	CIM Class
CCIM_CSPowerManagementService	CIM_PowerManagementService
CCIM_CSAssociatedPowerManagementService	CIM_AssociatedPowerManagementService
CCIM_PMSElementCapabilities	CIM_ElementCapabilities
CCIM_CSPowerManagementCapabilities	CIM_PowerManagementCapabilities

Modifiable Properties

The following properties of this profile can be modified:

Property	Class	Required User Role
RequestPowerChange	CCIM_CSPowerManagementService	user or admin

Power Supply Profile

The specification for this profile can be found at this URL:

http://www.dmtf.org/standards/published_documents/DSP1015_1.1.0.pdf

This profile supports the following classes:

Cisco Class	CIM Class
CCIM_PowerRedundancySet	CIM_RedundancySet
CCIM_PowerSupply	CIM_PowerSupply
CCIM_PSMemberOfCollection	CIM_MemberOfCollection
CCIM_PSOwningCollectionElement	CIM_OwningCollectionElement
CCIM_CSHostedPowerRedundancy	CIM_HostedCollection
CCIM_PSAssociatedSensor	CIM_AssociatedSensor

Profile Registration Profile

The specification for this profile can be found at this URL:

http://www.dmtf.org/standards/published_documents/DSP1033_1.0.0.pdf

This profile supports the following classes:

Cisco Class	CIM Class
CCIM_ElementConformsToProfile	CIM_ElementConformsToProfile
CCIM_RegisteredProfile	CIM_RegisteredProfile
CCIM_ElementConformsToProfile	CIM_ElementConformsToProfile
CCIM_CSReferencedProfile	CIM_RegisteredProfile
CCIM_SPReferencedProfile	CIM_RegisteredProfile

Record Log Profile

The specification for this profile can be found at this URL:

http://www.dmtf.org/standards/published_documents/DSP1010_2.0.0.pdf

This profile supports the following classes:

Cisco Class	CIM Class
CCIM_SELRecordLog	CIM_RecordLog
CCIM_SELLogEntry	CIM_LogEntry
CCIM_SELLogManagesRecord	CIM_LogManagesRecord
CCIM_CSUseOfLog	CIM_UseOfLog
CCIM_SysRecordLog	CIM_RecordLog
CCIM_SysLogEntry	CIM_LogEntry
CCIM_SysLogManagesRecord	CIM_LogManagesRecord
CCIM_SPUseOfLog	CIM_UseOfLog

Modifiable Properties

The following properties of this profile can be modified:

Property	Class	Required User Role
ClearLog	CCIM_SELRecordLog	user or admin

Sensors Profile

The specification for this profile can be found at this URL:

http://www.dmtf.org/standards/published_documents/DSP1009_1.0.2.pdf

This profile supports the following classes:

Cisco Class	CIM Class
CCIM_Sensor	CIM_Sensor
CCIM_NumericSensor	CIM_NumericSensor
CCIM_AssociatedSensor	CIM_AssociatedSensor
CCIM_CSSensorsConcreteCollection	CIM_ConcreteCollection
CCIM_CSSensorsMemberOfCollection	CIM_MemberOfCollection

Modifyable Properties

The following properties of this profile can be modified:

Property	Class	Required User Role
LowerThresholdNonCritical	CCIM_NumericSensor	admin
LowerThresholdCritical	CCIM_NumericSensor	admin
LowerThresholdFatal	CCIM_NumericSensor	admin
UpperThresholdNonCritical	CCIM_NumericSensor	admin
UpperThresholdCritical	CCIM_NumericSensor	admin
UpperThresholdFatal	CCIM_NumericSensor	admin

Service Processor Profile

The specification for this profile can be found at this URL:

http://www.dmtf.org/standards/published_documents/DSP1018_1.0.0.pdf

This profile supports the following classes:

Cisco Class	CIM Class
CCIM_SPComputerSystem	CIM_ComputerSystem
CCIM_TimeService	CIM_TimeService
CCIM_SPHostedService	CIM_HostedService
CCIM_SystemComponent	CIM_SystemComponent

Modifiable Properties

The following properties of this profile can be modified:

Property	Class	Required User Role
ManageTime	CCIM_TimeService	read-only, user, or admin

System Memory Profile

The specification for this profile can be found at this URL:

http://www.dmtf.org/standards/published_documents/DSP1026_1.0.0.pdf

This profile supports the following classes:

Cisco Class	CIM Class
CCIM_Memory	CIM_Memory
CCIM_PhysicalMemory	CIM_PhysicalMemory
CCIM_MemoryRealizes	CIM_Realizes

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