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/smash

This chapter contains the following topics:

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

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>
```