

Managing the Server

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Managing Host Power

The examples in this section show how to use the Cisco IMC XML API to manage host power. Each example shows the XML API request followed by the response from Cisco IMC.

This section includes the following examples:

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Powering On the Server

```
originalUuid="1C0C4600-671D-4B53-A06E-590CD0FEBC85" presence="equipped"
    serial="FCH1821JAV4" totalMemory="262144" usrLbl=""
uuid="1C0C4600-671D-4B53-A06E-590CD0FEBC85"
    vendor="Cisco Systems Inc" dn="sys/chassis-1/server-1" status="modified"/>
    </outConfig>
</configConfMo>
```

Powering Off the Server

Request:

```
<configConfMo cookie='1418463333/5d69498a-160a-1a16-8002-91fabb1b0ff4'
dn='sys/chassis-1/server-1'><inConfig><computeServerNode
dn='sys/chassis-1/server-1' adminPower='down'/>
</inConfig>
</configConfMo>
Response:
```

<configConfMo dn="sys/chassis-1/server-1"

Power Cycling the Server

Request:

```
<configConfMo cookie='1418463333/5d69498a-160a-1a16-8002-91fabb1b0ff4'
dn='sys/chassis-1/server-1'><inConfig><computeServerNode dn='sys/chassis-1/server-1'
adminPower='cycle-immediate'/></inConfig></configConfMo>
Response:
```

Power Management

The examples in this section show how to use the Cisco IMC XML API to retrieve and perform power management tasks. Each example shows the XML API request followed by the response from Cisco IMC.

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Disabling Power Capping

Request:

Response:

```
<configConfMo dn="sys/chassis-1/budget"
cookie="1472715713/d2304f05-6e3b-1b6e-8002-ddf0c322e470"
response="yes">
<outConfig>
<chassisPowerBudget dn="sys/chassis-1/budget" adminState="disabled" minPower="712"
maxPower="1023" budget="1023" capBudget="551" powerCharStatus="Completed successfully"
autoMinBudget="901" adminAction="no-op" status="modified" >
</chassisPowerBudget>
</cutConfig>
```

Enabling Power Capping and Setting Chassis Budget

```
<configConfMo cookie='1472715713/d2304f05-6e3b-1b6e-8002-ddf0c322e470'
dn='sys/chassis-1/budget'>
<inConfig>
<chassisPowerBudget dn='sys/chassis-1/budget' adminState='enabled' budget='900'/>
</inConfig></configConfMo>"
```

1

Response:

```
<configConfMo dn="sys/chassis-1/budget"
cookie="1472715713/d2304f05-6e3b-1b6e-8002-ddf0c322e470"
response="yes">
<outConfig>
<chassisPowerBudget dn="sys/chassis-1/budget" adminState="enabled" minPower="712"
maxPower="1023" budget="900" capBudget="551" powerCharStatus="Completed successfully"
autoMinBudget="901" adminAction="no-op" status="modified" >
</chassisPowerBudget>
</contfig>
</configConfMo>
```

Running Power Characterization

Request:

Response:

```
<configConfMo dn="sys/chassis-1/budget"
cookie="1452562357/3e4c4620-1929-1919-800f-00f8c322e470"
response="yes">
<outConfig>
    <chassisPowerBudget dn="sys/chassis-1/budget" adminState="disabled" minPower="421"
    maxPower="421" budget="421" capBudget="-1" runPowCharAtBoot="yes"
    powerCharStatus="Completed successfully" adminAction="no-op" status="modified" >
    </chassisPowerBudget>
    </chassisPowerBudget>
    </cutConfig>
    </cutConfig>
</configConfMo>
```

Resetting Power Profiles to Default

Request:

```
<configConfMo cookie='1452562357/3e4c4620-1929-1919-800f-00f8c322e470'
dn='sys/chassis-1/budget'>
    <inConfig>
    <chassisPowerBudget dn='sys/chassis-1/budget'
    adminAction='reset-power-profile-default' status='modified'/>
    </inConfig>
</configConfMo>
```

```
<configConfMo dn="sys/chassis-1/budget"
cookie="1453845128/57ec2969-442a-1a44-8003-6b47145daae4"
response="yes">
<outConfig>
    <chassisPowerBudget dn="sys/chassis-1/budget" adminState="enabled" minPower="N/A"
    maxPower="N/A" budget="N/A" capBudget="N/A" runPowCharAtBoot="yes"
    powerCharStatus="Running" adminAction="no-op" status="modified">
    </chassisPowerBudget>
    </chastisPowerBudget>
    </chastisPowerBudget>
    </chastisPowerBudget>
    </chastisPowerBudget>
    </chastisPowerBudget>
```

Retrieving Global Power Capping Details

Request:

```
<configResolveDn cookie='1453596884/fd2963e6-092a-1a09-8009-6b47145daae4'
inHierarchical='false' dn='sys/chassis-1/budget'/>
```

Response:

```
<configResolveDn cookie="1472719025/9c73f130-6e3b-1b6e-8003-ddf0c322e470"
response="yes" dn="sys/chassis-1/budget">
<outConfig>
<chassisPowerBudget dn="sys/chassis-1/budget" adminState="enabled" minPower="712"
maxPower="1023" budget="900" capBudget="435" powerCharStatus="Completed successfully"
autoMinBudget="901" adminAction="no-op" >
    </chassisPowerBudget>
</outConfig>
</configResolveDn>
```

Enabling Custom Profiles

Request:

```
<configConfMo cookie='1452505509/a4e30f9d-0c29-190c-8008-00f8c322e470'
dn='sys/chassis-1/server-1/budget/cust-prof'>
    <inConfig>
    <customPowerProfile dn='sys/chassis-1/server-1/budget/cust-prof' profileEnabled='yes'
    allowThrottle='yes' suspendPeriod='10:30-22:30|Mo,Tu' corrAction='alert' corrTime='3'
    powerLimit='250'/>
    </inConfig>
</configConfMo>
```

Response:

```
<configConfMo dn="sys/chassis-1/server-1/budget/cust-prof"
    cookie="1452505509/a4e30f9d-0c29-190c-8008-00f8c322e470" response="yes">
    <outConfig>
    <customPowerProfile dn="sys/chassis-1/server-1/budget/cust-prof"
    profileType="custom" profileEnabled="yes" allowThrottle="yes" powerLimit="250"
    suspendPeriod="10:30-22:30|Mo,Tu" corrAction="alert" corrTime="3" status="modified" >
    </customPowerProfile>
    </cus
```

Retrieving Custom Profile Details

Request:

```
<configResolveClass cookie='1452506619/f5fd0476-0c29-190c-8009-00f8c322e470'
inHierarchical='true' classId='customPowerProfile'/>
```

```
<configResolveClass cookie="1452506619/f5fd0476-0c29-190c-8009-00f8c322e470"
response="yes" classId="customPowerProfile">
    <customPowerProfile dn="sys/chassis-1/server-1/budget/cust-prof" profileType="custom"
    profileEnabled="yes" allowThrottle="yes" powerLimit="250" suspendPeriod="10:30-22:30|Mo,Tu"
    corrAction="alert" corrTime="3" >
    </customPowerProfile>
    </outConfigs>
</configResolveClass>
```

Disabling Custom Profile

Request:

```
<configConfMo cookie='1452505509/a4e30f9d-0c29-190c-8008-00f8c322e470'
dn='sys/chassis-1/server-1/budget/cust-prof'>
<inConfig>
  <customPowerProfile dn='sys/chassis-1/server-1/budget/cust-prof' profileEnabled='no'/>
</inConfig>
</configConfMo>
```

Response:

```
<configConfMo dn="sys/chassis-1/server-1/budget/cust-prof"
 cookie="1452505509/a4e30f9d-0c29-190c-8008-00f8c322e470" response="yes">
<outConfig>
<customPowerProfile dn="sys/chassis-1/server-1/budget/cust-prof" profileType="custom"
 profileEnabled="no" allowThrottle="yes" powerLimit="250" suspendPeriod="10:30-22:30|Mo,Tu"
 corrAction="alert" corrTime="3" status="modified" >
</customPowerProfile>
</outConfig>
</configConfMo>
```

Enabling Auto-Balance Profile with Priority Type Dynamic

Request:

```
<configConfMo cookie='1453492545/55992822-f229-19f2-8003-6b47145daae4'
dn='sys/chassis-1/budget/auto-prof'>
<inConfig>
 <autoPowerProfile dn='sys/chassis-1/budget/auto-prof' profileEnabled='yes'</pre>
 priority='dynamic' allowThrottle='yes' corrAction='alert' corrTime='1'
 suspendPeriod='10:30-22:30|Mo,Tu'/>
 </inConfig>
</configConfMo>
```

Response:

```
<configConfMo dn="sys/chassis-1/budget/auto-prof"
cookie="1472719802/6298eaac-6e3b-1b6e-8005-ddf0c322e470" response="yes">
<outConfig>
<autoPowerProfile dn="sys/chassis-1/budget/auto-prof" profileType="auto balance"</pre>
 profileEnabled="yes" priority="dynamic" priorServerId="1" powerLimitServer1="223"
 powerLimitServer2="1163" allowThrottle="yes" suspendPeriod="10:30-22:30|Mo,Tu"
 corrAction="alert" corrTime="1" status="modified" >
</autoPowerProfile>
</outConfig>
</configConfMo>
```

Enabling Auto-Balance Profile with Priority Type Manual

Request:

```
<configConfMo cookie='1472719802/6298eaac-6e3b-1b6e-8005-ddf0c322e470'
dn='sys/chassis-1/budget/auto-prof'>
<inConfig>
<autoPowerProfile dn='sys/chassis-1/budget/auto-prof' profileEnabled='yes'</pre>
 priority='manual' priorServerId='2' allowThrottle='yes' corrAction='alert'
 corrTime='1' suspendPeriod='10:30-22:30|Mo,Tu'/>
 </inConfig>
</configConfMo>
```

```
<configConfMo dn="sys/chassis-1/budget/auto-prof"
cookie="1472719802/6298eaac-6e3b-1b6e-8005-ddf0c322e470" response="yes">
<outConfig>
 <autoPowerProfile dn="sys/chassis-1/budget/auto-prof" profileType="auto balance"</pre>
```

```
profileEnabled="yes" priority="manual" priorServerId="2" powerLimitServer1="201"
powerLimitServer2="329" allowThrottle="yes" suspendPeriod="10:30-22:30|Mo,Tu"
corrAction="alert" corrTime="1" status="modified" >
</autoPowerProfile>
</outConfig>
</configConfMo>
```

Disabling Auto-Balance Profile

Request:

```
<configConfMo cookie='1472719802/6298eaac-6e3b-1b6e-8005-ddf0c322e470'
dn='sys/chassis-1/budget/auto-prof'>
<inConfig>
<autoPowerProfile dn='sys/chassis-1/budget/auto-prof' profileEnabled='no'/>
</inConfig>
</configConfMo>
Response:
```

```
<configConfMo dn="sys/chassis-1/budget/auto-prof"
cookie="1472719802/6298eaac-6e3b-1b6e-8005-ddf0c322e470" response="yes">
<outConfig>
<autoPowerProfile dn="sys/chassis-1/budget/auto-prof" profileType="auto_balance"
profileEnabled="no" priority="manual" priorServerId="2" powerLimitServer1="201"
powerLimitServer2="329" allowThrottle="yes" suspendPeriod="10:30-22:30|Mo,Tu"
corrAction="alert" corrTime="1" status="modified" >
</outConfig>
</configConfMo>
```

Enabling Thermal Profile

Request:

Response:

```
<configConfMo dn="sys/chassis-1/server-2/budget/thermal-prof"
cookie="1472719802/6298eaac-6e3b-1b6e-8005-ddf0c322e470" response="yes">
<outConfig>
<thermalPowerProfile dn="sys/chassis-1/server-2/budget/thermal-prof"
profileType="thermal" profileEnabled="yes" temperature="25" powerLimit="150"
status="modified" >
</thermalPowerProfile>
</configConfMo>
```

Disabling Thermal Profile

Request:

```
<configConfMo cookie='1452550587/731da901-1729-1917-800b-00f8c322e470'
dn='sys/chassis-1/server-2/budget/thermal-prof'>
<inConfig>
<thermalPowerProfile dn='sys/chassis-1/server-2/budget/thermal-prof'
profileEnabled='no' />
</inConfig>
</configConfMo>
```

```
<configConfMo dn="sys/chassis-1/server-2/budget/thermal-prof"
cookie="1472719802/6298eaac-6e3b-1b6e-8005-ddf0c322e470" response="yes">
```

```
<outConfig>
<thermalPowerProfile dn="sys/chassis-1/server-2/budget/thermal-prof"
profileType="thermal" profileEnabled="no" temperature="40" powerLimit="150"
status="modified" >
</thermalPowerProfile>
</outConfig>
</configConfig>
</configConfMo>
```

Retrieving the CPU Power Utilization for Server Nodes

Request:

```
<configResolveClass cookie='1453435371/7a33a835-e529-19e5-8002-00f8c322e470' inHierarchical='true' classId='serverUtilization'/>
```

Response:

```
<configResolveClass cookie="1472719802/6298eaac-6e3b-1b6e-8005-ddf0c322e470"
response="yes" classId="serverUtilization">
<outConfigs>
<serverUtilization dn="sys/chassis-1/server-1/utilization" overallUtilization="0"
cpuUtilization="0" memoryUtilization="0" ioUtilization="0" >
</serverUtilization>
<serverUtilization dn="sys/chassis-1/server-2/utilization" overallUtilization="96"
cpuUtilization="100" memoryUtilization="4" ioUtilization="0" >
</configResolveClass>
```

Retrieving Power Monitoring Details of Chassis and Server Nodes

Request:

```
<configResolveClass cookie='1453489912/722ed3e2-f129-19f1-8002-6b47145daae4' inHierarchical='true' classId='powerMonitor'/>
```

Response:

```
<configResolveClass cookie="1453489912/722ed3e2-f129-19f1-8002-6b47145daae4"
response="yes" classId="powerMonitor">
<outConfigs>
 <powerMonitor domain="Platform" current="220" minimum="90" maximum="342" average="184"</pre>
 period="0days 1:58:1" dn="sys/chassis-1/server-1/pwrmonitor-Platform" >
</powerMonitor>
<powerMonitor domain="CPU" current="158" minimum="46" maximum="259" average="127"</p>
period="0days 1:58:1" dn="sys/chassis-1/server-1/pwrmonitor-CPU" >
</powerMonitor>
 period="0days 1:58:1" dn="sys/chassis-1/server-1/pwrmonitor-Memory" >
</powerMonitor><powerMonitor domain="Platform" current="132" minimum="96" maximum="366"
average="118" period="0days 1:58:3" dn="sys/chassis-1/server-2/pwrmonitor-Platform" >
</powerMonitor><powerMonitor domain="CPU" current="74" minimum="42" maximum="251" average="62"
period="0days 1:58:3" dn="sys/chassis-1/server-2/pwrmonitor-CPU" >
</powerMonitor>
<powerMonitor domain="Memory" current="22" minimum="16" maximum="64" average="20"</pre>
period="0days 1:58:3" dn="sys/chassis-1/server-2/pwrmonitor-Memory" >
</powerMonitor>
</outConfigs>
</configResolveClass>
```

Retrieving Chassis Power Budget Details

Request:

```
<configResolveClass cookie='1453489912/722ed3e2-f129-19f1-8002-6b47145daae4'
inHierarchical='true' classId='chassisPowerBudget'/>
```

```
<configResolveClass cookie="1453489912/722ed3e2-f129-19f1-8002-6b47145daae4"
response="yes" classId="chassisPowerBudget">
```

```
<outConfigs>
<chassisPowerBudget dn="sys/chassis-1/budget" adminState="enabled" minPower="888"
maxPower="1361" budget="1200" capBudget="740" runPowCharAtBoot="yes"
powerCharStatus="Completed successfully" adminAction="no-op" >
<autoPowerProfile rn="auto-prof" profileType="auto_balance" profileEnabled="no"
priority="manual" priorServerId="1" powerLimitServer1="499" powerLimitServer2="415"
allowThrottle="no" suspendPeriod="" corrAction="none" corrTime="1" >
</autoPowerProfile>
</chassisPowerBudget></outConfigs>
</configResolveClass>
```

Managing Boot Order

The examples in this section show how to use the Cisco IMC XML API to retrieve and configure the boot order. Each example shows the XML API request followed by the response from Cisco IMC.

This section includes the following examples:

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- Configuring Legacy to UEFI Boot Mode, on page 12
- Retrieving UEFI Secure Boot Information, on page 12
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Retrieving Precision Boot Order Information

```
<configResolveClass cookie="1256524707/a7d534e9-cd76-16cd-8014-aaec921b0ff4"
         inHierarchical="true" classId="lsbootDevPrecision"/>
Response:
<configResolveClass cookie="1256524707/a7d534e9-cd76-16cd-8014-aaec921b0ff4" response="yes"
classId="lsbootDevPrecision">
  <outConfigs>
    <lpre><lpre>lsbootDevPrecision dn="sys/chassis-1/server-1/boot-precision" name="boot-precision"
        purpose="operational" rebootOnUpdate="no" reapply="no" configuredBootMoe="None"
      lastConfiguredBootOrderSource="CIMC"/>
    <lpre>lsbootDevPrecision dn="sys/chassis-1/server-2/boot-precision" name="boot-precision"
     purpose="operational" rebootOnUpdate="no" reapply="no" configuredBootMode="Uefi'
      lastConfiguredBootOrderSource="CIMC">
      clsbootVMedia name="VMEDIA-KVMFDD" type="VMEDIA" subtype="kvm-mapped-fdd"
access="read-write-drive" order="1" state="Disabled" rn="vm-VMEDIA-KVMFDD"/>
      <lpre><lsbootVMedia name="VMEDIA-1" type="VMEDIA" subtype="kvm-mapped-dvd"</pre>
       access="read-only-local" order="8" state="Disabled" rn="vm-VMEDIA-1"/>
     <lpre><lsbootPchStorage name="TEST-PCH" type="PCHSTORAGE" lun="3" order="12" state="Disabled"</pre>
 rn="pchstorage-TEST-PCH"/>
      <lsbootUefiShell name="EFI0-1" type="UEFISHELL" order="13" state="Disabled"</pre>
rn="uefishell-EFI0-1"/>
```

```
</lsbootDevPrecision>
</outConfigs>
</configResolveClass>
```

Retrieving Boot Order Table Information (Server 1)

Request:

```
<configResolveDn cookie="1256527817/b46e308c-ce76-16ce-8003-aaec921b0ff4"
dn='sys/chassis-1/server-1/bios/bdgep' inHierarchical="true"/>
Response:
```

```
<configResolveDn cookie="1256527817/b46e308c-ce76-16ce-8003-aaec921b0ff4"
response="yes" dn="sys/chassis-1/server-1/bios/bdgep">
  <outConfig>
    <biosBOT dn="sys/chassis-1/server-1/bios/bdgep">
      <biosBootMode rn="boot-mode" actualBootMode="Legacy"/>
<biosBootDevPrecision descr="Cisco vKVM-Mapped vDVD1.22"</pre>
       order="1" name="CDROM" type="VMEDIA" subtype="kvm-mapped-dvd" rn="bdvp-1"/>
      <biosBootDevPrecision descr="Cisco CIMC-Mapped vDVD1.22</pre>
       order="2" name="CDROM" type="VMEDIA" subtype="cimc-mapped-dvd" rn="bdvp-2"/>
      <biosBootDevPrecision descr="UEFI: Built-in EFI Shell "
order="3" name="NonPolicyTarget" type="EFI" rn="bdvp-3"/>
      <biosBootDevPrecision descr="(Bus 04 Dev 00)PCI RAID Adapter"</pre>
       order="4" name="NonPolicyTarget" type="HDD" slot="M" rn="bdvp-4"/>
      <biosBootDevPrecision descr="Cisco vKVM-Mapped vHDD1.22"</pre>
      order="5" name="NonPolicyTarget" type="VMEDIA" subtype="kvm-mapped-hdd" rn="bdvp-5"/>
      <biosBootDevPrecision descr="Cisco vKVM-Mapped vFDD1.22"</pre>
      order="6" name="NonPolicyTarget" type="VMEDIA" subtype="kvm-mapped-fdd" rn="bdvp-6"/>
      <biosBootDevPrecision descr="Cisco CIMC-Mapped vHDD1.22"</pre>
      order="7" name="NonPolicyTarget" type="VMEDIA" subtype="cimc-mapped-hdd" rn="bdvp-7"/>
    </biosBOT>
  </outConfig>
</configResolveDn>
```

Retrieving Boot Order Table Information (Server 2)

```
<configResolveDn cookie="1256527817/b46e308c-ce76-16ce-8003-aaec921b0ff4"
dn='sys/chassis-1/server-2/bios/bdgep' inHierarchical="true"/>
Response:
```

```
<configResolveDn cookie="1256527817/b46e308c-ce76-16ce-8003-aaec921b0ff4"
response="yes" dn="sys/chassis-1/server-2/bios/bdgep">
  <outConfig>
    <biosBOT dn="sys/chassis-1/server-2/bios/bdgep">
       <biosBootMode rn="boot-mode" actualBootMode="Uefi"/>
      <biosBootDevPrecision descr="UEFI: Cisco vKVM-Mapped vDVD1.22"
order="1" name="CDROM" type="EFI" rn="bdvp-1"/>
       <biosBootDevPrecision descr="UEFI: Built-in EFI Shell "</pre>
      order="2" name="NonPolicyTarget" type="EFI" rn="bdvp-2"/>
       <biosBootDevPrecision descr="Cisco vKVM-Mapped vDVD1.22"</pre>
      order="3" name="NonPolicyTarget" type="VMEDIA" subtype="kvm-mapped-dvd" rn="bdvp-3"/>
       <biosBootDevPrecision descr="Cisco vKVM-Mapped vHDD1.22"</pre>
      order="4" name="NonPolicyTarget" type="VMEDIA" subtype="kvm-mapped-hdd" rn="bdvp-4"/>
       <biosBootDevPrecision descr="Cisco vKVM-Mapped vFDD1.22"</pre>
       order="5" name="NonPolicyTarget" type="VMEDIA"
       subtype="kvm-mapped-fdd" rn="bdvp-5"/>
       <biosBootDevPrecision descr="Cisco CIMC-Mapped vDVD1.22"</pre>
      order="6" name="NonPolicyTarget" type="VMEDIA"
       subtype="cimc-mapped-dvd" rn="bdvp-6"/>
```

```
<br/>
```

Retrieving Actual Boot Order Information (Server 1 and Server 2)

Request:

```
<configResolveClass cookie="1256525715/b603f647-ce76-16ce-8015-aaec921b0ff4"
inHierarchical="true" classId="biosBootDevPrecision"/>
Response:
<configResolveClass cookie="1256525715/b603f647-ce76-16ce-8015-aaec921b0ff4" res
ponse="yes" classId="biosBootDevPrecision">
  <outConfigs>
     <biosBootDevPrecision descr="Cisco vKVM-Mapped vDVD1.22" order="1"</pre>
    name="CDROM" type="VMEDIA" subtype="kvm-mapped-dvd"
dn="sys/chassis-1/server-1/bios/bdgep/bdvp-1"/> <biosBootDevPrecision</pre>
     descr="Cisco CIMC-Mapped vDVD1.22" order="2"
     name="CDROM" type="VMEDIA" subtype="cimc-mapped-dvd"
     dn="sys/chassis-1/server-1/bios/bdgep/bdvp-2"/>
     <biosBootDevPrecision descr="UEFI: Built-in EFI Shell " order="3"</pre>
     name="NonPolicyTarget" type="EFI" dn="sys/chassis-1/server-1/bios/bdgep/bdvp-3"/>
     <biosBootDevPrecision descr="(Bus 04 Dev 00)PCI RAID Adapter" order="4"</pre>
    name="NonPolicyTarget" type="HDD" slot="M" dn="sys/chassis-1/server-1/bios/bdgep/bdvp-4"/>
    <biosBootDevPrecision descr="Cisco vKVM-Mapped vHDD1.22" order="5"
name="NonPolicyTarget" type="VMEDIA" subtype="kvm-mapped-hdd"</pre>
     dn="sys/chassis-1/server-1/bios/bdgep/bdvp-5"/>
     <biosBootDevPrecision descr="Cisco vKVM-Mapped vFDD1.22" order="6"</pre>
     name="NonPolicyTarget" type="VMEDIA" subtype="kvm-mapped-fdd"
     dn="sys/chassis-1/server-1/bios/bdgep/bdvp-6"/>
     <br/><biosBootDevPrecision descr="Cisco CIMC-Mapped vHDD1.22" order="7" name="NonPolicyTarget" type="VMEDIA" subtype="cimc-mapped-hdd"
     dn="sys/chassis-1/server-1/bios/bdgep/bdvp-7"/>
     <biosBootDevPrecision descr="UEFI: Cisco vKVM-Mapped vDVD1.22" order="1"</pre>
    name="CDROM" type="EFI" dn="sys/chassis-1/server-2/bios/bdgep/bdvp-1"/>
<biosBootDevPrecision descr="UEFI: Built-in EFI Shell " order="2"</pre>
     name="NonPolicyTarget" type="EFI" dn="sys/chassis-1/server-2/bios/bdgep/bdvp-2"/>
```

```
Retrieving Actual Boot Order Information using DN
```

Request:

</outConfigs> </configResolveClass>

```
<configResolveDn cookie="1256525715/b603f647-ce76-16ce-8015-aaec921b0ff4"
dn='sys/chassis-1/server-2/bios/bdgep/bdvp-5' inHierarchical="false"/>
```


<biosBootDevPrecision descr="Cisco vKVM-Mapped vDVD1.22" order="3"
name="NonPolicyTarget" type="VMEDIA" subtype="kvm-mapped-dvd"

<biosBootDevPrecision descr="Cisco vKVM-Mapped vHDD1.22" order="4" name="NonPolicyTarget" type="VMEDIA" subtype="kvm-mapped-hdd"

<biosBootDevPrecision descr="Cisco vKVM-Mapped vFDD1.22" order="5" name="NonPolicyTarget" type="VMEDIA" subtype="kvm-mapped-fdd"

<biosBootDevPrecision descr="Cisco CIMC-Mapped vDVD1.22" order="6" name="NonPolicyTarget" type="VMEDIA" subtype="cimc-mapped-dvd"

order="7" name="NonPolicyTarget" type="VMEDIA" subtype="cimc-mapped-hdd"

dn="sys/chassis-1/server-2/bios/bdgep/bdvp-3"/>

dn="sys/chassis-1/server-2/bios/bdgep/bdvp-4"/>

dn="sys/chassis-1/server-2/bios/bdgep/bdvp-5"/>

dn="sys/chassis-1/server-2/bios/bdgep/bdvp-6"/>

dn="sys/chassis-1/server-2/bios/bdgep/bdvp-7"/>

<biosBootDevPrecision descr="Cisco CIMC-Mapped vHDD1.22"</pre>

Response:

Retrieving BIOS Boot Mode Information using DN

Request:

```
<configResolveDn cookie="1256526667/3bbac6ee-cd76-16cd-8002-aaec921b0ff4"
dn='sys/chassis-1/server-1/bios/bdgep/boot-mode' inHierarchical="true"/>
Response:
```

Configuring Legacy to UEFI Boot Mode

Request:

```
<configConfMo cookie='1256586379/e30f586c-dc76-16dc-8008-aaec921b0ff4'
dn='sys/chassis-1/server-2/boot-precision'><inConfig><lsbootDevPrecision
configuredBootMode='Uefi'/></inConfig></configConfMo>
Response:
```

```
<configConfMo dn="sys/chassis-1/server-2/boot-precision"
cookie="1256586379/e30f586c-dc76-16dc-8008-aaec921b0ff4" response="yes">
<outConfig>
<lsbootDevPrecision dn="sys/chassis-1/server-2/boot-precision"
name="boot-precision" purpose="operational" rebootOnUpdate="no"
reapply="no" configuredBootMode="Uefi" lastConfiguredBootOrderSource="CIMC"
status="modified"/>
</outConfig>
</configConfMo>
```

Retrieving UEFI Secure Boot Information

Request:

```
<configResolveClass cookie="1256580961/3d850c6c-db76-16db-8006-aaec921b0ff4"
inHierarchical="false" classId="lsbootBootSecurity"/>
Response:
```

<configResolveClass cookie="1256580961/3d850c6c-db76-16db-8006-aaec921b0ff4" response="yes"

```
classId="lsbootBootSecurity">
   <outConfigs>
        lsbootBootSecurity dn="sys/chassis-1/server-1/boot-policy/boot-security"
        secureBoot="disabled"/>
```

<lsbootBootSecurity dn="sys/chassis-1/server-2/boot-policy/boot-security"
secureBoot="disabled"/>
</outConfigs>
</configResolveClass>
Enabling UEFI Secure Boot (Server 2)
Request:

Managing Boot Devices

The examples in this section show how to use the Cisco IMC XML API to manage a boot device. Each example shows the XML API request followed by the response from Cisco IMC.

This section includes the following examples:

- Creating a Boot Device, on page 13
- Modifying a Boot Device, on page 14
- Deleting a Boot Device, on page 15

Creating a Boot Device

</configConfMo>

```
<configConfMo cookie="1418657182/795cfede-420a-1a42-800e-91fabb1b0ff4"
dn="sys/chassis-1/server-1/boot-precision" inHierarchical="true">
  <inConfig>
    <lsbootDevPrecision dn="sys/chassis-1/server-1/boot-precision"
    rebootOnUpdate="no" reapply="yes" >
     lsbootVMedia name="vmedia-c3260-test" type="VMEDIA"
order="1" state="Disabled" rn="vm-vmedia-c3260-test" />
     <lsbootPxe name="pxe-c3260-test" type="PXE" slot="1" port="1"
     order="2" state="Disabled" rn="pxe-pxe-c3260-test" />
     <lsbootHdd name="hdd-c3260-test" type="LOCALHDD" order="3"
     state="Disabled" rn="hdd-hdd-c3260-test" />
     <lsbootSan name="san-c3260-test" type="SAN" slot="4" order="4"
     state="Disabled" rn="san-san-c3260-test" />
     <lpre><lsbootIscsi name="iscsi-c3260-test" type="ISCSI" slot="7"</pre>
     order="5" state="Disabled" rn="iscsi-iscsi-c3260-test" />
    </lsbootDevPrecision>
  </inConfig>
</configConfMo>
Response:
```

```
<configConfMo dn="sys/chassis-1/server-1/boot-precision"
cookie="1418657182/795cfede-420a-1a42-800e-91fabb1b0ff4" response="yes">
<outConfig>
```

```
<lsbootDevPrecision dn="sys/chassis-1/server-1/boot-precision"
     name="boot-precision" purpose="operational" rebootOnUpdate="no"
     reapply="no" configuredBootMode="Uefi"
     lastConfiguredBootOrderSource="CIMC" status="modified">
      <lsbootVMedia name="vmedia-c3260-test" type="VMEDIA" order="1"
state="Disabled" rn="vm-vmedia-c3260-test" status="modified"/>
      <lpre><lsbootPxe name="pxe-c3260-test" type="PXE" slot="1" port="1"</pre>
      order="2" state="Disabled" rn="pxe-pxe-c3260-test" status="modified"/>
      <lsbootHdd name="hdd-c3260-test" type="LOCALHDD" order="3"
      state="Disabled" rn="hdd-hdd-c3260-test" status="modified"/>
      <lsbootSan name="san-c3260-test" type="SAN" slot="4" order="4"</pre>
      state="Disabled" rn="san-san-c3260-test" status="modified"/>
      <lsbootIscsi name="iscsi-c3260-test" type="ISCSI" slot="7"</pre>
      order="5" state="Disabled" rn="iscsi-iscsi-c3260-test" status="modified"/>
    </lsbootDevPrecision>
  </outConfig>
</configConfMo>
```

Modifying a Boot Device

```
<configConfMo cookie="1418661362/99fd4a5a-440a-1a44-800f-91fabb1b0ff4"
dn="sys/chassis-1/server-1/boot-precision" inHierarchical="true">
  <inConfig>
      <lsbootDevPrecision dn="sys/chassis-1/server-1/boot-precision"
       rebootOnUpdate="yes" status="modified">
      <lsbootVMedia name="vmedia-c3260-test" order="2" />
      <lsbootIscsi name="iscsi-c3260-test" order="4" />
      </lsbootDevPrecision>
  </inConfig>
</configConfMo>
Response:
<configConfMo dn="sys/chassis-1/server-1/boot-precision"
cookie="1418657182/795cfede-420a-1a42-800e-91fabb1b0ff4"
response="ves">
  <outConfig>
    <lsbootDevPrecision dn="sys/chassis-1/server-1/boot-precision"
    name="boot-precision" purpose="operational" rebootOnUpdate="no"
reapply="no" configuredBootMode="Uefi" lastConfiguredBootOrderSource="CIMC"
    status="modified">
      <lpre><lsbootVMedia name="vmedia-c3260-test" type="VMEDIA" order="2"</pre>
      state="Disabled" rn="vm-vmedia-c3260-test" status="modified"/>
      <lsbootPxe name="pxe-c3260-test" type="PXE" slot="1" port="1"
      order="1" state="Disabled" rn="pxe-pxe-c3260-test" status="modified"/>
       <lsbootHdd name="hdd-c3260-test" type="LOCALHDD" order="3"</pre>
      state="Disabled" rn="hdd-hdd-c3260-test" status="modified"/>
      <lsbootSan name="san-c3260-test" type="SAN" slot="4" order="5s"</pre>
```

Deleting a Boot Device

Request:

DIMM Blacklisting

The examples in this section show how to use the Cisco IMC XML API to retrieve and enable DIMM Blacklisting. Each example shows the XML API request followed by the response from Cisco IMC.

This section includes the following examples:

- Retrieving DIMM Blacklisting Details, on page 15
- Retrieving DIMM Blacklisting Details using DN, on page 16
- Enabling DIMM Blacklisting, on page 16
- Disabling DIMM Blacklisting, on page 16

Retrieving DIMM Blacklisting Details

```
<configResolveClass cookie="1256404558/fa002591-b176-16b1-8007-aaec921b0ff4"
inHierarchical="false" classId="memoryArray"/>
Response:
<configResolveClass cookie="1256404558/fa002591-b176-16b1-8007-aaec921b0ff4"
response="yes"
               classId="memoryArray">
  <outConfigs>
    <memoryArray dn="sys/chassis-1/server-1/board/memarray-1" currCapacity="131072" id="1"</pre>
    maxDevices="16" populated="16" presence="equipped" overallDIMMStatus="green"
    dimmBlackList="enabled" redundantMemory="0" memoryRASPossible="Independent Mirroring
Lockstep '
    memoryConfiguration="Independent " failedMemory="0"
    ignoredMemory="0" numOfIgnoredDimms="0" numOfFailedDimms="0"/>
    <memoryArray dn="sys/chassis-1/server-2/board/memarray-1"</pre>
   currCapacity="262144" id="1" maxDevices="16" populated="16"
   presence="equipped" overallDIMMStatus="red" dimmBlackList="enabled"
   redundantMemory="0" memoryRASPossible="Independent "
memoryConfiguration="Independent " failedMemory="98304"
   ignoredMemory="0" numOfIgnoredDimms="0" numOfFailedDimms="6"/>
```

</outConfigs> </configResolveClass>

Retrieving DIMM Blacklisting Details using DN

Request:

Enabling DIMM Blacklisting

Request:

```
<configConfMo cookie='1256416392/bc0f62a9-b476-16b4-8009-aaec921b0ff4'
dn='sys/chassis-1/server-2/board/memarray-1'><inConfig><memoryArray
dimmBlackList='enable'/></inConfig></configConfMo>
Response:
```

Disabling DIMM Blacklisting

```
<configConfMo cookie='1256416392/bc0f62a9-b476-16b4-8009-aaec921b0ff4'
dn='sys/chassis-1/server-2/board/memarray-1'><inConfig><memoryArray
dimmBlackList='disable'/></inConfig></configConfMo>
Response:
```

```
status="modified"/>
</outConfig>
</configConfMo>
```

BIOS Settings

The examples in this section show how to use the Cisco IMC XML API to manage BIOS settings. Each example shows the XML API request followed by the response from Cisco IMC.

This section includes the following examples:

- Entering BIOS Setup, on page 17
- Retrieving BIOS Token Values, on page 17
- Configuring BIOS Parameters, on page 17

Entering BIOS Setup

Request:

```
<configConfMo cookie='1418468130/1d579ff4-160a-1a16-8004-91fabb1b0ff4'
dn='sys/chassis-1/server-1/bios'><inConfig><biosUnit
adminAction='enter-bios-setup'/></inConfig></configConfMo>
Response:
```

Retrieving BIOS Token Values

Request:

```
<configConfMo cookie="1418723449/52bb08e3-520a-1a52-8015-91fabb1b0ff4"
inHierarchical="true" dn="sys/chassis-1/server-1/bios/bios-settings">
<inConfig>
```

1

```
<biosSettings>
       <br/><biosVfLegacyUSBSupport
dn="sys/chassis-1/server-1/bios/bios-settings/LegacyUSB-Support"
       vpLegacyUSBSupport="disabled" />
       </biosSettings>
       </inConfig>
</configConfMo>
Response:
<configConfMo dn="sys/chassis-1/server-1/bios/bios-settings" cookie="1418723449/
52bb08e3-520a-1a52-8015-91fabb1b0ff4" response="yes">
 <outConfig>
   port="enabled" vpIntelVTDCoherencySupport="disabled"
     vpIntelVTForDirectedIO="enabled" status="modified"/>
     <biosVfLegacyUSBSupport rn="LegacyUSB-Support" vpLegacyUSBSupport="disabled"</pre>
status="modified"/>
   </biosSettings>
 </outConfig>
</configConfMo>
```