Viewing Server Properties

This chapter includes the following sections:

Viewing Server Properties

Procedure

	Command or Action	Purpose
Step 1	Server# **show chassis** [**detail**]	Displays server properties.

Example

This example displays server properties:

```
Server# show chassis detail
Chassis:
    Power: on
    Serial Number: QCI140205ZG
    Product Name: UCS C210 M2
    PID : R210-2121605W
    UUID: FFFFFFFF-FFFF-FFFF-FFFF-FFFFFFFFFFFF
    Locator LED: off
    Description: This shows the chassis details.
```

```
Server#
```

This example displays server properties for C3160 servers:

```
Server# show chassis detail
Chassis:
    Power: on
    Serial Number: FCH1821JAVL
    Product Name: UCS C3160
    PID : UCSC-C3X60-SVRNB
    UUID: 84312F76-75F0-4BD1-9167-28B74EBB444C
    Locator LED: off
    Front Panel Locator LED: off
    Description: This shows the chassis details
Server#
```

Viewing System Information

Procedure

	Command or Action	Purpose
Step 1	Server# **scope chassis**	Enters the chassis command mode.
Step 2	Server /chassis # **show sku-details**	Displays the system information.

Example

This example shows how to view system details:

```
Server# scope chassis
Server /chassis # show sku-details
    SAS Expander: Not-Present
    HDD: 10-SFF_drive_back_plane
    Riser1: (1 Slot x16)
    Riser2: (1 Slot x16)
    M.2 SATA/NVMe: Not-Present
    M.2 SD Card Controller: Not-Present
    CPU1 PKG-ID: Non-MCP
    CPU2 PKG-ID: Non-MCP
    Intrusion Sensor: Not-Equipped
Server /chassis #
```

Viewing a Server Utilization

You can view a server utilization only on some UCS C-Series servers.

Procedure

	Command or Action	Purpose
Step 1	Server# **scope chassis**	Enters the chassis command mode.

	Command or Action	Purpose
Step 2	Server /chassis # **show cups-utilization**	Displays the server utilization value on all the available CPUs.
		Note These utilization values are reported as a percentage of the total hardware bandwidth. These values may not match with the values being displayed by the host based resource monitoring software.

Example

This example shows how to view the server utilization value:

```
Server# scope chassis
Server /chassis # show cups-utilization

CPU Utilization (%)  Memory Utilization (%)  I/O Utilization (%)  Overall Utilization (%)
-------------------- ----------------------- -------------------- -----------------------
100                  69                      0                    86

Server /chassis #
```

Viewing Cisco IMC Properties

✎

Note   Cisco IMC gets the current date and time from the server BIOS. To change this information, reboot the server and press **F2** when prompted to access the BIOS configuration menu. Then change the date or time using the options on the main BIOS configuration tab.

Procedure

	Command or Action	Purpose
Step 1	Server# **show cimc** [**detail**]	Displays Cisco IMC properties.

Example

This example displays Cisco IMC properties:

```
Server# show cimc detail
Cisco IMC:
    Firmware Version: 2.0(8.122)
    Current Time: Wed Dec  9 23:14:28 2015
    Boot-loader Version: 2.0(8.122).36
    Local Time: Wed Dec  9 23:14:28 2015 UTC +0000
    Timezone: UTC
    Reset Reason: graceful-reboot (This provides the last Cisco IMC reboot reason.)
```

```
Server#
```

Viewing CPU Properties

Before you begin

The server must be powered on, or the properties will not display.

Procedure

	Command or Action	Purpose
Step 1	Server# **scope chassis**	Enters chassis command mode.
Step 2	Server /chassis # **show cpu** [**detail**]	Displays CPU properties.

Example

This example displays CPU properties:

```
Server# scope chassis
Server /chassis # show cpu
Name          Cores     Version
------------ -------- ------------------------------------------------
CPU1          4         Intel(R) Xeon(R) CPU          E5520  @ 2.27GHz
CPU2          4         Intel(R) Xeon(R) CPU          E5520  @ 2.27GHz

Server /chassis #
```

Viewing Memory Properties

Before you begin

The server must be powered on, or the properties will not display.

Procedure

	Command or Action	Purpose
Step 1	Server# **scope chassis**	Enters chassis command mode.
Step 2	Server /chassis # **show dimm** [**detail**]	Displays memory properties.
Step 3	Server /chassis # **show dimm-summary**	Displays DIMM summary information.

Example

This example displays memory properties:

```
Server# scope chassis
Server /chassis # show dimm
Name                 Capacity        Channel Speed (MHz) Channel Type
-------------------- --------------- ------------------- ---------------
DIMM_A1              2048 MB         1067                Other
DIMM_A2              2048 MB         1067                Other
DIMM_B1              2048 MB         1067                Other
DIMM_B2              2048 MB         1067                Other
DIMM_C1              Not Installed   Unknown             Other
DIMM_C2              Not Installed   Unknown             Other
DIMM_D1              2048 MB         1067                Other
DIMM_D2              2048 MB         1067                Other
DIMM_E1              2048 MB         1067                Other
DIMM_E2              2048 MB         1067                Other
DIMM_F1              Not Installed   Unknown             Other
DIMM_F2              Not Installed   Unknown             Other

Server /chassis #
```

This example displays detailed information about memory properties:

```
Server# scope chassis
Server /chassis # show dimm detail
Name DIMM_A1:
    Capacity: 2048 MB
    Channel Speed (MHz): 1067
    Channel Type: Other
    Memory Type Detail: Synchronous
    Bank Locator: NODE 0 CHANNEL 0 DIMM 0
    Visibility: Yes
    Operability: Operable
    Manufacturer: 0x802C
    Part Number: 18JSF25672PY-1G1D1
    Serial Number: 0xDA415F3F
    Asset Tag: Unknown
    Data Width: 64 bits
Name DIMM_A2:
    Capacity: 2048 MB
--More--

Server /chassis #
```

This example displays DIMM summary information:

```
Server# scope chassis
Server /chassis # show dimm-summary
DIMM Summary:
    Memory Speed: 1067 MHz
    Total Memory: 16384 MB
    Effective Memory: 16384 MB
    Redundant Memory: 0 MB
    Failed Memory: 0 MB
    Ignored Memory: 0 MB
    Number of Ignored Dimms: 0
    Number of Failed Dimms: 0
    Memory RAS possible: Memory configuration can support mirroring
    Memory Configuration: Maximum Performance

Server /chassis #
```

Viewing Power Supply Properties

Before you begin

The server must be powered on, or the properties will not display.

Procedure

	Command or Action	Purpose
Step 1	Server# **scope chassis**	Enters chassis command mode.
Step 2	Server /chassis # **show psu** [**detail**]	Displays power supply properties.

Example

This example displays power supply properties:

```
Server# scope chassis
Server /chassis # show psu
Name       In. Power (Watts)    Out. Power (Watts)   Firmware  Status
---------- -------------------- -------------------- -------- ----------
PSU1       74                   650                  R0E       Present
PSU2       83                   650                  R0E       Present

Server /chassis #
```

✎

Note   **Input Power** and **Maximum Output Power** options are available only for some C-Series servers.

Viewing Storage Properties

Viewing Storage Adapter Properties

Before you begin

The server must be powered on, or the properties will not display.

Procedure

	Command or Action	Purpose
Step 1	Server# **scope chassis**	Enters the chassis command mode.
Step 2	Server /chassis # **show storageadapter** [*slot*] [**detail**]	Displays installed storage cards.

	Command or Action	Purpose
		Note This command displays all MegaRAID controllers on the server that can be managed through Cisco IMC. If an installed controller or storage device is not displayed, then it cannot be managed through Cisco IMC.
Step 3	Server /chassis # **scope storageadapter** *slot*	Enters command mode for an installed storage card.
Step 4	Server /chassis/storageadapter # **show bbu** [**detail**]	Displays battery backup unit information for the storage card.
Step 5	Server /chassis/storageadapter # **show capabilites** [**detail**]	Displays RAID levels supported by the storage card.
Step 6	Server /chassis/storageadapter # **show error-counters** [**detail**]	Displays number of errors seen by the storage card.
Step 7	Server /chassis/storageadapter # **show firmware-versions** [**detail**]	Displays firmware version information for the storage card.
Step 8	Server /chassis/storageadapter # **show hw-config** [**detail**]	Displays hardware information for the storage card.
Step 9	Server /chassis/storageadapter # **show mfg-data** [**detail**]	Displays manufacturer data for the storage card.
Step 10	Server /chassis/storageadapter # **show pci-info** [**detail**]	Displays adapter PCI information for the storage card.
Step 11	Server /chassis/storageadapter # **show running-firmware-images** [**detail**]	Displays running firmware information for the storage card.
Step 12	Server /chassis/storageadapter # **show settings** [**detail**]	Displays adapter firmware settings for the storage card.
Step 13	Server /chassis/storageadapter # **show startup-firmware-images** [**detail**]	Displays firmware images to be activated on startup for the storage card.

Example

This example displays storage properties:

```
Server# scope chassis
Server /chassis # show storageadapter
PCI Slot  Product Name                        Serial Number  Firmware Package Build
--------  ----------------------------------- -------------  ------------------------
SAS       LSI MegaRAID SAS 9260-8i            SV93404392     12.12.0-0038
```

```
           Product ID    Battery Status Cache Memory Size
     ---- -------------- -------------- --------------
           LSI Logic      fully charged  0 MB

Server /chassis #
```

This example displays battery backup unit information for the storage card named SAS:

```
Server# scope chassis
Server /chassis # scope storageadapter SAS
Server /chassis/storageadapter # show bbu
Controller Battery Type Battery Present Voltage    Current    Charge Charging State
---------- ------------ -------------- ---------- ---------- ------ --------------
SAS        iBBU         true           4.051 V    0.000 A    100%   fully charged

Server /chassis/storageadapter #
```

Viewing the Flexible Flash Controller Properties

Before you begin

- Cisco Flexible Flash must be supported by your platform.

Procedure

	Command or Action	**Purpose**
Step 1	Server# **scope chassis**	Enters the chassis command mode.
Step 2	Required: Server /chassis # **show flexflash** [**detail**]	(Optional) Displays the available Cisco Flexible Flash controllers.
Step 3	Required: Server /chassis # **scope flexflash** *index*	Enters the Cisco Flexible Flash controller command mode for the specified controller. At this time, the only permissible *index* value is **FlexFlash-0**.
Step 4	Server /chassis/flexflash # **show operational-profile** [**detail**]	Displays the operational profile properties.

Example

This example displays the properties of the flash controller:

```
Server# scope chassis
Server /chassis # show flexflash
Controller    Product Name     Has Error  Firmware Version  Vendor   Internal State
------------ ---------------- ---------- ---------------- -------- ---------------
FlexFlash-0  Cisco FlexFlash  No          1.2 build 247    Cypress  Connected

Server /chassis # scope flexflash FlexFlash-0
Server /chassis # show operational-profile
Primary Member Slot  I/O Error Threshold  Host Accessible VDs
-------------------- -------------------- --------------------
slot1                100                  SCU Drivers
```

```
Server /chassis/flexflash #
```

Viewing Physical Drive Properties

Procedure

	Command or Action	**Purpose**
Step 1	Server# **scope chassis**	Enters the chassis command mode.
Step 2	Server /chassis # **scope storageadapter** *slot*	Enters command mode for an installed storage card.
Step 3	Server /chassis/storageadapter # **show physical-drive** [*drive-number*] [**detail**]	Displays physical drive information for the storage card.
Step 4	Server /chassis/storageadapter # **show physical-drive-count** [**detail**]	Displays the number of physical drives on the storage card.
Step 5	Server /chassis/storageadapter # **scope physical-drive** *drive-number*	Enters command mode for the specified physical drive.
Step 6	Server /chassis/storageadapter/physical-drive # **show general** [**detail**]	Displays general information about the specified physical drive.
Step 7	Server /chassis/storageadapter/physical-drive # **show inquiry-data** [**detail**]	Displays inquiry data about the specified physical drive.
Step 8	Server /chassis/storageadapter/physical-drive # **show status** [**detail**]	Displays status information about the specified physical drive.

Example

This example displays general information about physical drive number 1 on the storage card named SAS:

```
Server# scope chassis
Server /chassis # scope storageadapter SAS
Server /chassis/storageadapter # scope physical-drive 1
Server /chassis/storageadapter/physical-drive # show general
Slot Number 1:
    Controller: SAS
    Enclosure Device ID: 27
    Device ID: 34
    Sequence Number: 2
    Media Error Count: 0
    Other Error Count: 0
    Predictive Failure Count: 0
    Link Speed: 6.0 Gb/s
    Interface Type: SAS
    Media Type: HDD
    Block Size: 512
    Block Count: 585937500
    Raw Size: 286102 MB
```

```
        Non Coerced Size: 285590 MB
        Coerced Size: 285568 MB
        SAS Address 0: 500000e112693fa2
        SAS Address 1:
        Connected Port 0:
        Connected Port 1:
        Connected Port 2:
        Connected Port 3:
        Connected Port 4:
        Connected Port 5:
        Connected Port 6:
        Connected Port 7:
        Power State: powersave

Server /chassis/storageadapter/physical-drive #
```

This example displays inquiry data about physical drive number 1 on the storage card named SAS:

```
Server# scope chassis
Server /chassis # scope storageadapter SAS
Server /chassis/storageadapter # scope physical-drive 1
Server /chassis/storageadapter/physical-drive # show inquiry-data
Slot Number 1:
    Controller: SAS
    Product ID: MBD2300RC
    Drive Firmware: 5701
    Drive Serial Number: D010P9A0016D

Server /chassis/storageadapter/physical-drive #
```

This example displays status information about physical drive number 1 on the storage card named SAS:

```
Server# scope chassis
Server /chassis # scope storageadapter SAS
Server /chassis/storageadapter # scope physical-drive 1
Server /chassis/storageadapter/physical-drive # show inquiry-data
Slot Number 1:
    Controller: SAS
    State: online
    Online: true
    Fault: false

Server /chassis/storageadapter/physical-drive #
```

Viewing Virtual Drive Properties

Procedure

	Command or Action	Purpose
Step 1	Server# **scope chassis**	Enters the chassis command mode.
Step 2	Server /chassis # **scope storageadapter** *slot*	Enters command mode for an installed storage card.
Step 3	Server /chassis/storageadapter # **show virtual-drive** [*drive-number*] [**detail**]	Displays virtual drive information for the storage card.

	Command or Action	**Purpose**
Step 4	Server /chassis/storageadapter # **show virtual-drive-count** [**detail**]	Displays the number of virtual drives configured on the storage card.
Step 5	Server /chassis/storageadapter # **scope virtual-drive** *drive-number*	Enters command mode for the specified virtual drive.
Step 6	Server /chassis/storageadapter/virtual-drive # **show physical-drive** [**detail**]	Displays physical drive information about the specified virtual drive.

Example

This example displays information about virtual drives on the storage card named SAS:

```
Server# scope chassis
Server /chassis # scope storageadapter SAS
Server /chassis/storageadapter # show virtual-drive
Virtual Drive  Status          Name                    Size        RAID Level
-------------- --------------- ----------------------- ----------  ----------
0              Optimal         SLES1SP1beta5           30720 MB    RAID 0
1              Optimal         RHEL5.5                 30720 MB    RAID 0
2              Optimal         W2K8R2_DC               30720 MB    RAID 0
3              Optimal         VD_3                    30720 MB    RAID 0
4              Optimal         ESX4.0u2                30720 MB    RAID 0
5              Optimal         VMs                     285568 MB   RAID 0
6              Optimal         RHEL6-35GB              35840 MB    RAID 0
7              Optimal         OS_Ins_Test_DR          158720 MB   RAID 0
8              Optimal                                 285568 MB   RAID 1

Server /chassis/storageadapter #
```

This example displays physical drive information about virtual drive number 1 on the storage card named SAS:

```
Server# scope chassis
Server /chassis # scope storageadapter SAS
Server /chassis/storageadapter # scope virtual-drive 1
Server /chassis/storageadapter/virtual-drive # show physical-drive
Span   Physical Drive Status     Starting Block Number Of Blocks
-----  -------------- ---------- -------------- ----------------
0      12             online     62914560       62914560

Server /chassis/storageadapter/virtual-drive #
```

Viewing Nvidia GPU Card Information

These commands are not available on all UCS C-series servers.

Before you begin

The server must be powered on to view information on the Nvidia GPU cards.

Procedure

	Command or Action	Purpose
Step 1	Server# **scope chassis**	Enters the chassis command mode.
Step 2	Server /chassis # **show gpu**	Displays the available Nvidia GPU cards on the system.
Step 3	Server /chassis # **scope gpu** *slot-number*	Enters the GPU card command mode. Specify the slot number of the GPU card.
Step 4	Server /chassis/gpu # **show gpu-list**	Displays temperature information on the GPU cards.

Example

This example shows how to view the temperature information of the available GPU cards on the system:

```
Server # scope chassis
Server /chassis # show gpu

Slot      Product Name        Num of GPUs
----      ------------        -----------
5         Nvidia GRID K2 @ BD    2

Server /chassis # scope gpu 5
Server /chassis/gpu # show gpu-list

GPU ID      Temperature
------      -----------
0              32
1              33

Server /chassis/gpu #
```

Viewing PCI Adapter Properties

Before you begin

The server must be powered on, or the properties will not display.

Procedure

	Command or Action	Purpose
Step 1	Server# **scope chassis**	Enters the chassis command mode.
Step 2	Server /chassis # **show pci-adapter** [**detail**]	Displays PCI adapter properties.

Example

This example displays PCI adapter properties:

```
Server# scope chassis
Server /chassis # show pci-adapter
Slot Vendor ID Device ID  SubVendor ID SubDevice ID  Firmware Version Product Name
---- --------- ---------- ------------ ------------- ---------------- -------------------
L    0x8086    0x1521     0x1137       0x008b        0x80000AA5... Intel(R) I350 1 Gbps N...
1    0x19a2    0x0710     0x10df       0xe702        4.6.142.10    Emulex OCe11102-FX 2 p...
3    0x10de    0x118f     0x10de       0x097f        N/A           Nvidia TESLA K10 P2055...
4    0x14e4    0x1639     0x14e4       0x1639        N/A           Broadcom 5709 1 Gbps 2...
5    0x10de    0x0ff2     0x10de       0x1012        N/A           Nvidia GRID K1 P2401-502
M    0x1000    0x0073     0x1137       0x00b1        N/A           Cisco UCSC RAID SAS 20…


Option ROM Status
----------
Loaded
Not-Loaded
Not-Loaded
Loaded

Server /chassis #
```

Note   **Option ROM Status** is applicable only for legacy boot mode and not for UEFI boot mode.

Viewing Network Related Properties

Viewing LOM Properties

You can view the MAC addresses of the LAN On Motherboard (LOM) Ethernet ports.

Procedure

	Command or Action	**Purpose**
Step 1	Server# **scope chassis**	Enters the chassis command mode.
Step 2	Server /chassis # **scope network-adapter** *slot ID*	Enters the specific network adapter command mode.
Step 3	Server /chassis/network-adapter # **show mac-list** [**detail**]	Displays the MAC addresses of the LOM ports.

Example

This example shows how to display the MAC addresses of the LOM ports:

```
Server# scope chassis
Server /chassis # scope network-adapter L
Server /chassis/network-adapter # show mac-list
Interface ID       MAC Address
```

```
------------   --------------------
eth0           010000002000
eth1           010000002000

Server /chassis/network-adapter #
```

Viewing TPM Properties

Before you begin

The server must be powered on, or the properties will not display.

Procedure

	Command or Action	Purpose
Step 1	Server# **scope chassis**	Enters the chassis command mode.
Step 2	Server /chassis # **show tpm-inventory**	Displays the TPM properties.

Example

This example displays the TPM properties:

```
Server# scope chassis
Server /chassis # show tpm-inventory

Version Presence  Enabled-Status  Active-Status  Ownership  Revision    Model
Vendor       Serial
------- --------  --------------  --------------  ----------  ---------   -------------
--------   -----------
 A      equipped  disabled        deactivated     unowned     1           UCSX-TPMX-00X  ABC
 Inc    FCHXXXXXXXX

Server /chassis #
```

Enabling 6G or 12G Mixed Mode Speed on SAS Expanders

Cisco IMC supports mixed mode speeds of 6 gigabytes or 12 gigabytes for SAS expanders. This support is added because 6 gigabyte solid state drives (SSDs) are now giving way to 12 gigabyte SSDs. Using this feature you can select a SAS expander in the Dynamic Storage tab and enable either modes based on your requirements.

Enabling 6G or 12G Mixed Mode on a SAS Expander

This action is available only on some servers.

Before you begin

You must log in with admin privileges to perform this task.

Procedure

	Command or Action	**Purpose**
Step 1	Server # **scope chassis**	Enters the chassis command mode.
Step 2	Server /chassis # **scope sas-expander sas-expander ID**	Enters the SAS expander command mode.
Step 3	Server /chassis/sas-expander # **scope 6G-12G-Mixed-Mode-status**	Enters the 6G or 12G mixed mode command mode.
Step 4	Server /chassis/sas-expander/6G-12G-Mixed-Mode-status # **set set-6G-12G-mixed-mode Enabled**	Enables the 6G or 12G mixed mode on the SAS expander.
Step 5	Server /chassis/sas-expander/6G-12G-Mixed-Mode-status * # **commit**	Enter **y** at the confirmation prompt. Commits the transaction to the system configuration.
Step 6	(Optional) Server /chassis/sas-expander/6G-12G-Mixed-Mode-status # **show detail**	Displays the 6G or 12G mixed mode status.

Example

This example shows how to enable the 6G or 12G mixed mode on the SAS expander:

```
Server# scope chassis
Server /chassis # scope sas-expander 1
Server /chassis/sas-expander # scope 6G-12G-Mixed-Mode-status
Server /chassis/sas-expander/6G-12G-Mixed-Mode-status # set set-6G-12G-mixed-mode Enabled
Server /chassis/sas-expander/6G-12G-Mixed-Mode-status *# commit
Are you sure you want to change the enable-mixed-mode setting to Enable mode?[y|N]y
Setting enable-mixed-mode setting to Enable ..
Successfully set enable-6G-12G-mixed-mode to Enable..
Server /chassis/sas-expander/6G-12G-Mixed-Mode-status # show detail
6G/12G Mixed Mode Settings:
    Mixed 6G/12G Drive Support: Enabled
Server /chassis/sas-expander/6G-12G-Mixed-Mode-status #
```