



Viewing Server Properties

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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-FFFFFFFFFFFFFF
  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.
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 <i>index</i> 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 <i>slot-number</i>	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 OCell1102-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      FCHXXXXXXXXX

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 #

```

Enabling Dual Enclosure in Storage Controllers

This feature is supported only on the server nodes having UCS S3260 12G Dual Pass-Through Controller (UCS-S3260-DHBA). Using this feature, you can select a SAS expander in the Dynamic Storage tab and enable dual enclosure support on the SAS expander, based on your requirements.

Before you begin

- Ensure that the server is powered off.

Procedure

-
- Step 1** Server# **scope chassis**
Enters the chassis command mode.
- Step 2** Server /chassis # **dynamic-storage**
Enters the dynamic storage command mode.
- Step 3** Server /chassis/dynamic-storage # **show expander-hw-detail**
Displays the list of SAS expander hardware details:
- Expander ID
 - Hardware revision
 - SAS Address
 - Enclosure ID of the SAS Expander
- Step 4** Server /chassis/dynamic-storage # **set-dual-enclosure**
Enable dual enclosure support. And select **yes** to set different enclosure ID for each SAS expander.
- Step 5** Server /chassis/dynamic-storage # **show expander-hw-detail**
Displays the list of SAS expander hardware details. Note the enclosure IDs for each SAS expander after enabling dual enclosure support.
-

Example

This example sets dual enclosure support in the SAS expanders:

```
Server # scope chassis
Server /chassis # scope dynamic-storage
Server /chassis # show expander-hw-detail
```

Name	Id	ExpanderHwRev	SasAddress	EnclosureId
SASEXP1	1	2	52cd02db305cba00	52cd02db305cb000
SASEXP2	2	2	52cd02db305ccb00	52cd02db305cb000

```
Server /chassis/dynamic-storage # set-dual-enclosure
Do you want to set different enclosure id to SAS Expanders?
Enter 'yes' --> to set different enclosure id
Enter 'no' --> to set same enclosure id
Enter your option 'yes/no' to continue-->yes
This dual enclosure feature should be applied only when the server nodes has UCS-S3260-DHBA
adaptor and single path is zoned for each drives.
make sure both server blades are powered off.
Do you want to continue? Enter 'yes' to continue-->yes
set-dual-enclosure operation success

Server /chassis # show expander-hw-detail
```

Name	Id	ExpanderHwRev	SasAddress	EnclosureId
SASEXP1	1	2	52cd02db305cba00	52cd02db305cb000
SASEXP2	2	2	52cd02db305ccb00	52cd02db305cb000

SASEXP1	1	2	52cd02db305cba00	52cd02db305cb000
Name	Id	ExpanderHwRev	SasAddress	EnclosureId
SASEXP2	2	2	52cd02db305ccb00	52cd02db305cb100

