Viewing Server Properties

This chapter includes the following sections:

Viewing Server 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.

	Command or Action	Purpose
Step 2	Server /chassis # **show detail**	Displays server properties.

This example displays server properties:

```
Server# scope chassis
Server /chassis # show detail
Chassis:
    Power: on
    Power Button: unlocked
    IOS Lockout: unlocked
    Serial Number: FOC16161F1P
    Product Name: E160D
    PID : UCS-E160D-M1/K9
    UUID: 1255F7F0-9F17-0000-E312-94B74999D9E7
    Description
```

Viewing the Actual Boot Order

Procedure

	Command or Action	Purpose
Step 1	Server# **scope bios**	Enters the BIOS command mode.
Step 2	Server /bios # **show actual-boot-order**	Displays details of the BIOS status.

This example displays actual boot order:

```
Server# scope bios
Server /bios # show actual-boot-order
Boot Order   Type                      Boot Device
------------ ------------------------- ----------------------------------
1            Internal EFI Shell        Internal EFI Shell
2            CD/DVD                    Linux Virtual CD/DVD 0324
3            HDD                       Cypress
4            HDD                       Linux Virtual FDD/HDD 0324
5            FDD                       Linux Virtual Floppy 0324
6            Network Device (PXE)      BRCM MBA Slot 0301 v15.2.7
7            Network Device (PXE)      BRCM MBA Slot 0302 v15.2.7
8            Network Device (PXE)      BRCM MBA Slot 0300 v15.2.7
```

Viewing CIMC Information

Before You Begin

Install the CIMC firmware on the server.

Procedure

	Command or Action	Purpose
Step 1	Server# **scope cimc**	Enters CIMC command mode.
Step 2	Server /cimc # **show** [**detail**]	Displays the CIMC firmware, current time, and boot loader version.

This example shows information about the CIMC:

```
Server# scope cimc
Server /cimc # show detail
CIMC:
    Firmware Version: 1.0(1.20120417172632)
    Current Time: Thu Apr 26 12:11:44 2012
    Boot-loader Version: 1.0(1.20120417172632).16
```

Viewing SD Card Information

Before You Begin

Install the CIMC firmware on the server.

Procedure

	Command or Action	Purpose
Step 1	Server# **scope cimc**	Enters CIMC command mode.
Step 2	Server /cimc # **show sd detail**	Displays the following information about the SD card: manufacturer and application ID, serial number, hardware and firmware revision, manufacture date, and whether the SD card is detected. If the card detected status is **yes**, it indicates that the SD card is present and is functional.

This example shows information about the CIMC:

```
Server# scope cimc
Server /cimc # show sd detail
Manufacturer ID: Unigen 0x000045
    OEM/Application ID: 0x0024
    Serial Number: 0x39500025
    Hardware Revision: 0x2
    Firmware Revision: 0x0
    Manufacture Date: 06/2013
    Card Detected: yes
```

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.

This example displays CPU properties:

```
Server# scope chassis
Server /chassis # show cpu
Name         Cores    Version
------------ -------- ----------------------------------------------------
CPU1         4        Intel(R) Xeon(R) CPU     E5-2418L 0 @ 2.00GHz

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.

This example displays memory properties:

```
Server# scope chassis
Server /chassis # show dimm
Name                 Capacity        Channel Speed (MHz) Channel Type
-------------------- --------------- ------------------- ---------------

Node0_Dimm0          8192 MB         1333                DDR3
Node0_Dimm1          8192 MB         1333                DDR3
Node0_Dimm2          8192 MB         1333                DDR3
```

This example displays detailed information about memory properties:

```
Server# scope chassis
Server /chassis # show dimm detail
Name Node0_Dimm0:
 Capacity: 8192 MB
 Channel Speed (MHz): 1333
 Channel Type: DDR3
 Memory Type Detail: Registered (Buffered)
 Bank Locator: Node0_Bank0
 Visibility: Yes
 Operability: Operable
 Manufacturer: Samsung
 Part Number: M393B1K70DH0-
 Serial Number: 86A7D514
 Asset Tag: Dimm0_AssetTag
 Data Width: 64 bits
 Name Node0_Dimm1:
 Capacity: 8192 MB
```

This example displays DIMM summary information:

```
Server# scope chassis
Server /chassis # show dimm-summary
DIMM Summary:
 Memory Speed: 1334 MHz
 Total Memory: 24576 MB
 Effective Memory: 24576 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: Reserved
 Memory Configuration: Maximum Performance
```

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 power-cap**	Enters the power cap command mode.
Step 2	Server /power-cap # **show** [**detail**]	Displays the server power consumption information.

This example displays the detailed power supply properties for a single-wide E-Series Server:

```
 Server# scope power-cap
 Server /power-cap # show detail
  Cur Consumption (W): 36.10 W
  Max Consumption (W): 075
  Min Consumption (W): 36.10 W
Server /power-cap #
```

This example displays the detailed power supply properties for a double-wide E-Series Server:

```
Server# scope power-cap
Server /power-cap # show detail
  Cur Consumption (W): 43.1 W
  Max Consumption (W): 160
  Min Consumption (W): 43.1 W
Server /power-cap #
```

Viewing Storage Properties

Viewing Storage Adapter Properties

Note This procedure is applicable to E-Series Servers and the SM E-Series NCE. This procedure is not applicable to the EHWIC E-Series NCE and the NIM E-Series NCE.

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. **Note** This command displays all MegaRAID controllers on the server that can be managed through the CIMC. If an installed controller or storage device is not displayed, then it cannot be managed through the CIMC.
Step 3	Server /chassis # **scope storageadapter SLOT-5**	Enters command mode for an installed storage card.
Step 4	Server /chassis/storageadapter # **show capabilites** [**detail**]	Displays RAID levels supported by the storage card.
Step 5	Server /chassis/storageadapter # **show error-counters** [**detail**]	Displays number of errors seen by the storage card.
Step 6	Server /chassis/storageadapter # **show firmware-versions** [**detail**]	Displays firmware version information for the storage card.
Step 7	Server /chassis/storageadapter # **show hw-config** [**detail**]	Displays hardware information for the storage card.

	Command or Action	Purpose
Step 8	Server /chassis/storageadapter # **show pci-info** [**detail**]	Displays adapter PCI information for the storage card.
Step 9	Server /chassis/storageadapter # **show running-firmware-images** [**detail**]	Displays running firmware information for the storage card.
Step 10	Server /chassis/storageadapter # **show settings** [**detail**]	Displays adapter firmware settings for the storage card.

This example displays storage properties:

```
Server# scope chassis
Server /chassis # show storageadapter

Controller Product Name                Firmware Package Build Product ID     Cache Memory
Size
---------- --------------------------- ---------------------- -------------- -----------------

SLOT-5     LSI MegaRAID SAS 2004 ROMB  20.10.1-0092           LSI Logic      0 MB
```

Viewing Physical Drive Properties

Note This procedure is applicable to E-Series Servers and the SM E-Series NCE. This procedure is not applicable to the EHWIC E-Series NCE and the NIM E-Series NCE.

Procedure

	Command or Action	Purpose
Step 1	Server# **scope chassis**	Enters the chassis command mode.
Step 2	Server /chassis # **scope storageadapter SLOT-5**	Enters command mode for an installed storage card.
Step 3	Server /chassis/storageadapter # **show physical-drive** [*slot-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** *slot-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.

	Command or Action	Purpose
Step 7	Server /chassis/storageadapter/physical-drive # **show security** [**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.

This example displays general information about the physical drive number 1 on the storage card named SLOT-5:

```
Server# scope chassis
Server /chassis # scope storageadapter SLOT-5
Server /chassis/storageadapter # scope physical-drive 1
Server /chassis/storageadapter/physical-drive # show general
Slot Number 1:
    Controller: SLOT-5
    Enclosure Device ID: 64
    Device ID: 3
    Sequence Number: 2
    Media Error Count: 0
    Other Error Count: 12
    Predictive Failure Count: 0
    Link Speed: 6.0 Gb/s
    Interface Type: SATA
    Media Type: HDD
    Block Size: 512
    Block Count: 1953525168
    Raw Size: 953869 MB
    Non Coerced Size: 953357 MB
    Coerced Size: 952720 MB
    SAS Address 0: 4433221100000000
    SAS Address 1:
    Connected Port 0:
    Connected Port 1:
    Connected Port 2:
    Connected Port 3:
    Connected Port 4:
```

This example provides status information about the physical drive number 1 on the storage card named SLOT-5:

```
Server# scope chassis
Server /chassis # scope storageadapter SLOT-5
Server /chassis/storageadapter # scope physical-drive 1
Server /chassis/storageadapter/physical-drive # show status
Slot Number 1:
   Controller: SLOT-5
   State: system
   Online: true
   Fault: false
```

Viewing Virtual Drive Properties

Note This procedure is applicable to E-Series Servers and the SM E-Series NCE. This procedure is not applicable to the EHWIC E-Series NCE and the NIM E-Series NCE.

Procedure

	Command or Action	Purpose
Step 1	Server# **scope chassis**	Enters the chassis command mode.
Step 2	Server /chassis # **scope storageadapter SLOT-5**	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.
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.

This example displays power supply properties:

```
Server# scope chassis
Server /chassis # scope storageadapter SLOT-5
Server /chassis/storageadapter # show virtual-drive
Virtual Drive  Status               Name                    Size       RAID Level
-------------- -------------------- ----------------------- ---------- ----------
0              Optimal                                      571250 MB  RAID 1

Server /chassis/storageadapter # show virtual-drive-count
PCI Slot SLOT-5:
    Virtual Drive Count: 1
    Degraded Virtual Drive Count: 0
    Offline Virtual Drive Count: 0
Server /chassis/storageadapter # scope virtual-drive 0
Server /chassis/storageadapter/virtual-drive # show physical-drive
Span  Physical Drive Status     Starting Block Number Of Blocks
----- -------------- ---------- -------------- ----------------
0     2              online     0              1169920000
0     1              online     0              1169920000
```

Viewing PCI Adapter Properties

Note This procedure is applicable to E-Series Servers and the SM E-Series NCE. This procedure is not applicable to the EHWIC E-Series NCE and the NIM E-Series NCE.

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.

This example displays PCI adapter properties:

```
Server# scope chassis
Server /chassis # show pci-adapter
Name             Slot  Vendor ID    Device ID    Product Name
---------------- ----- ------------ ------------ -------------------------
PCIe Adapter1    1     0x1137       0x0042       Cisco UCS P81E Virtual...
PCIe Adapter2    5     0x1077       0x2432       Qlogic QLE2462 4Gb dua...

Server /chassis #
```

Viewing Power Policy Statistics

Procedure

	Command or Action	Purpose
Step 1	Server# **show power-cap [detail]**	Displays the server power consumption statistics and the power cap policy.

The displayed fields are described in the following table:

Name	Description
Current Consumption	The power currently being used by the server, in watts.
Maximum Consumption	The maximum number of watts consumed by the server since the last time it was rebooted.
Minimum Consumption	The minimum number of watts consumed by the server since the last time it was rebooted.

This example displays the detailed power statistics for a single-wide E-Series Server:

```
 Server# scope power-cap
 Server /power-cap # show detail
  Cur Consumption (W): 36.10 W
  Max Consumption (W): 075
  Min Consumption (W): 36.10 W
Server /power-cap #
```

This example displays the detailed power statistics for a double-wide E-Series Server:

```
 Server# scope power-cap
 Server /power-cap # show detail
  Cur Consumption (W): 43.1 W
  Max Consumption (W): 160
  Min Consumption (W): 43.1 W
Server /power-cap #
```

Viewing Hard Drive Presence

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 hdd**	Displays the hard drives.

This example displays power supply properties:

```
Server# scope chassis
Server /chassis # show hdd
    Name             Status
-------------------- --------------------
HDD1_PRS             inserted
HDD2_PRS             inserted
HDD3_PRS             inserted
```

Viewing the MAC Address of an Interface

You can view the system defined interface names and the MAC address that is assigned to each host interface.

Procedure

	Command or Action	Purpose
Step 1	Server# **scope cimc**	Enters CIMC command mode.
Step 2	Server /cimc # **scope network**	Enters network command mode.
Step 3	Server /cimc/network # **show lom-mac-list** [**detail**]	Displays the system defined interface names and the MAC address that is assigned to each host interface.

This example shows how to display the system defined interface names and the MAC address that is assigned to each host interface:

```
Server# scope cimc
Server /cimc # scope network
Server /cimc/network # show lom-mac-list
Interface                      MAC Address
------------------------------ --------------------
Console                        00:24:c4:f4:89:ee
GE1                            00:24:c4:f4:89:ef
GE2                            00:24:c4:f4:89:f0
GE3                            00:24:c4:f4:89:f1
```

Viewing the Status of CIMC Network Connections

Before You Begin

You must log in as a user with admin privileges to view the status of the CIMC network connections; whether the link is detected (physical cable is connected to the network interface) or not detected.

Procedure

	Command or Action	Purpose
Step 1	Server# **scope cimc**	Enters CIMC command mode.
Step 2	Server /cimc # **scope network**	Enters CIMC network command mode.
Step 3	Server /cimc/network # **show link state [detail]**	Displays the status of the CIMC network connections; whether the link is detected (physical cable is connected to the network interface) or not detected.

This example displays the status of the CIMC network connections:

```
Server# scope cimc
Server /cimc # scope network
Server /cimc/network # show link state
Interface                      State
------------------------------ --------------------
Console                        Link Detected
GE1                            No Link Detected
GE2                            No Link Detected
GE3                            No Link Detected
Dedicated                      Link Detected

Server /cimc/network # show link-state detail
Link State:
    Interface: Console
    State: Link Detected
Link State:
    Interface: GE1
    State: No Link Detected
Link State:
    Interface: GE2
    State: No Link Detected
Link State:
    Interface: GE3
    State: No Link Detected
Link State:
    Interface: Dedicated
```

```
State: Link Detected
```