Cisco CMC Commands

This chapter includes a description of all the Cisco CMC commands in alphabetical order of the command mnemonic.

For each command, this chapter provides:

- A short description of the purpose of the command
- The command syntax
- The semantics of each parameter in the syntax
- Parameter default values
- Command example or examples
- Related commands

The following commands are available on the Cisco CMC:

autoboot

To auto boot the U-Boot mode on the Cisco CMC, use the **autoboot** command in U-Boot mode.

autoboot

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

U-Boot (BOOT>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Examples

The following example shows how to auto boot the U-Boot mode on the Cisco CMC:

```
BOOT> autoboot
```

bootcmc

To boot the Cisco CMC using an image name, use **bootcmc** command in U-Boot mode.

bootcmc *img_name*

Syntax Description

img_name	Name of the Cisco CMC image.

Command Default

None

Command Modes

U-Boot (BOOT>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Examples

The following example shows how to boot the Cisco CMC using the image name:

```
BOOT> bootcmc cmc-16x4-os-1.0.bin

Start tftp load cmc image to RAM addr(0xb00000)...
Speed: 1000, full duplex
Using eTSEC2 device
TFTP from server 192.168.1.180; our IP address is 192.168.1.181
Filename 'cmc-16x4-os-1.0.bin'.
Load address: 0xb00000
Loading: ##################################################################
         ##################################################################
         ##################################################################
         ##################################################################
         ##################################################################
         ##################################################################
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         ##################################################################
         ##################################
         1.5 MiB/s
done
Bytes transferred = 21419416 (146d598 hex)
```

```
Parsed module ram address:
Kernel : 0xb00054
Rootfs : 0xd786e6
DTB    : 0xcf1dd2
FPGA   : 0x1bf816a

The image is loaded from address[0x01bf816a], with length [1].
Start unzip fpga image. Unzip from 0x1bf816a to 0x2000000
Uncompressed size: 11443612 = 0xAE9D9C
start downloading address:0x2000000
.........................................................
Serial download FPGA done.
PCI initializing ...
PCIe1: Root Complex of mini PCIe Slot, x1, regs @ 0xffe0a000
  01:00.0     - 10ee:7011 - Memory controller
PCIe1: Bus 00 - 01
PCI initialization done.
## Booting kernel from Legacy Image at 00b00054 ...
   Image Name:   Linux-3.2.0
   Image Type:   PowerPC Linux Kernel Image (gzip compressed)
   Data Size:    2039102 Bytes = 1.9 MiB
   Load Address: 00000000
   Entry Point:  00000000
   Verifying Checksum ... OK
## Loading init Ramdisk from Legacy Image at 00d786e6 ...
   Image Name:   uboot ext2 ramdisk rootfs
   Image Type:   PowerPC Linux RAMDisk Image (gzip compressed)
   Data Size:    15202860 Bytes = 14.5 MiB
   Load Address: 00000000
   Entry Point:  00000000
   Verifying Checksum ... OK
## Flattened Device Tree blob at 00cf1dd2
   Booting using the fdt blob at 0x00cf1dd2
   Uncompressing Kernel Image ... OK
   Loading Ramdisk to 0efed000, end 0fe6ca2c ... OK
   Loading Device Tree to 03ff6000, end 03fff913 ... OK
```

Related Commands

Command	Description
bootm	Boots the Cisco CMC using the image from memory.
imls	Displays a list of all the images available in the flash memory.

bootm

To boot the Cisco CMC using the image from memory, use the **bootm** command in U-Boot mode.

bootm *kernel-addr rootfs-addr dtb-addr*

Syntax Description

kernel-addr	Kernel address in Random Access Memory (RAM).
rootfs-addr	RootFS address in RAM.
dtb-addr	Device tree file address in RAM. The valid values are 0xEEE00000, 0xEEE20000, and 0xEFF20000.

Command Default

None

Command Modes

U-Boot (BOOT>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

To obtain the *kernel-addr* and *rootfs-addr*, use the **imls** command.

Examples

The following example shows how to boot the Cisco CMC using the image from memory:

```
BOOT> bootm 0xEEB00000 0xED000000 0xEEE20000

## Booting kernel from Legacy Image at eeb00000 ...
   Image Name:   Linux-3.2.0
   Image Type:   PowerPC Linux Kernel Image (gzip compressed)
   Data Size:    2043433 Bytes = 1.9 MiB
   Load Address: 00000000
   Entry Point:  00000000
   Verifying Checksum ... OK
## Loading init Ramdisk from Legacy Image at ed000000 ...
   Image Name:   uboot ext2 ramdisk rootfs
   Image Type:   PowerPC Linux RAMDisk Image (gzip compressed)
   Data Size:    15194591 Bytes = 14.5 MiB
   Load Address: 00000000
   Entry Point:  00000000
   Verifying Checksum ... OK
## Flattened Device Tree blob at eee20000
   Booting using the fdt blob at 0xeee20000
   Uncompressing Kernel Image ... OK
   Loading Ramdisk to 0efef000, end 0fe6c9df ... OK
   Loading Device Tree to 03ff6000, end 03fff913 ... OK
```

Related Commands

Command	Description
bootcmc	Boots the Cisco CMC using an image name.
imls	Displays a list of all the images available in the flash memory.

enable

To enter the privilege mode, use the **enable** command in normal mode.

enable

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Normal (>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

Enter your password, if prompted.

Examples

The following example shows how to enter the privilege mode:

```
CMC> enable
Please enter password:
CMC#
```

exit

To exit the privilege mode, use the **exit** command.

exit

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Privilege (#)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Examples

The following example shows how to exit the privilege mode:

```
CMC# exit
CMC>
```

fpgadnld

To download the FPGA image to the FPGA on the Cisco CMC, use **fpgadnld** command in U-Boot mode.

fpgadnld *addr len*

Syntax Description

addr	Address of the location where the FPGA image is stored on the RAM or flash memory.
len	Length of the FPGA image. **Note** It must be a non-zero number.

Command Default

None

Command Modes

U-Boot (BOOT>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Examples

The following example shows how to download the FPGA image to the FPGA chip on the Cisco CMC:

```
BOOT> fpgadnld ee000000 1

The image is loaded from address[0xee000000], with length [1].
Start unzip fpga image. Unzip from 0xee000000 to 0x2000000
Uncompressed size: 11443612 = 0xAE9D9C
start downloading address:0x2000000
.........................................................
Serial download FPGA done.
```

help

To display the command description and usage information, use the **help** command in U-Boot mode.

help

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

U-Boot (BOOT>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Examples

The following example shows how to use the Cisco CMC command-line interface help:

```
BOOT> help

?       - alias for 'help'
autoboot- U-boot autoBoot
bootcmc - start cmc image via tftp
bootm   - boot application image from memory
fpgadnld- a tool to upgrade the FPGA
help    - print command description/usage
iminfo  - print header information for application image
imls    - list all images found in flash
loadb   - load binary file over serial line (kermit mode)
ping    - send ICMP ECHO_REQUEST to network host
powerreset- power reset
printenv- print environment variables
reset   - Perform RESET of the CPU
setenv  - set environment variables
tftpboot- boot image via network using TFTP protocol
unzip   - unzip a memory region
version - print monitor, compiler and linker version
```

Related Commands

Command	Description
?	Alias for help.

iminfo

To display the header information for the Cisco CMC image, use the **iminfo** command in U-Boot mode.

iminfo *addr*

Syntax Description

addr	Location where the header information of image must be displayed.

Command Default

None

Command Modes

U-Boot (BOOT>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

To obtain the address or location where the header information of image must be displayed, use the **imls** command.

Examples

The following example shows how to display the header information for the Cisco CMC image:

```
BOOT> iminfo EEE40000

## Checking Image at eee40000 ...
   Legacy image found
   Image Name:   Linux-3.2.0
   Image Type:   PowerPC Linux Kernel Image (gzip compressed)
   Data Size:    2042390 Bytes = 1.9 MiB
   Load Address: 00000000
   Entry Point:  00000000
   Verifying Checksum ... OK
```

Related Commands

Command	Description
imls	Displays a list of all the images available in the flash memory.

imls

To display a list of all the images available in the flash memory, use the **imls** command in U-Boot mode.

imls

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

U-Boot (BOOT>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Examples

The following example shows how to display the list of available images in the flash memory:

```
BOOT> => imls

Legacy Image at EE800000:
   Image Name:   Linux-3.2.0
   Image Type:   PowerPC Linux Kernel Image (gzip compressed)
   Data Size:    2043433 Bytes = 1.9 MiB
   Load Address: 00000000
   Entry Point:  00000000
   Verifying Checksum ... OK
Legacy Image at EEB00000:
   Image Name:   Linux-3.2.0
   Image Type:   PowerPC Linux Kernel Image (gzip compressed)
   Data Size:    2043581 Bytes = 1.9 MiB
   Load Address: 00000000
   Entry Point:  00000000
   Verifying Checksum ... OK
Legacy Image at EC000000:
   Image Name:   uboot ext2 ramdisk rootfs
   Image Type:   PowerPC Linux RAMDisk Image (gzip compressed)
   Data Size:    15194591 Bytes = 14.5 MiB
   Load Address: 00000000
   Entry Point:  00000000
   Verifying Checksum ... OK
Legacy Image at ED000000:
   Image Name:   uboot ext2 ramdisk rootfs
   Image Type:   PowerPC Linux RAMDisk Image (gzip compressed)
   Data Size:    15480455 Bytes = 14.8 MiB
   Load Address: 00000000
   Entry Point:  00000000
   Verifying Checksum ... OK
Legacy Image at EDF00000:
   Image Name:   Linux-3.2.0
   Image Type:   PowerPC Linux Kernel Image (gzip compressed)
   Data Size:    2034430 Bytes = 1.9 MiB
   Load Address: 00000000
   Entry Point:  00000000
   Verifying Checksum ... Bad Data CRC
```

Related Commands

Command	Description
iminfo	Displays the header information for Cisco CMC image.

loadb

To load a binary file to the Cisco CMC RAM via serial line using the Kermit protocol, use the **loadb** command in U-Boot mode.

loadb *offset baud*

Syntax Description

offset	Offset address in Cisco CMC RAM where the file must be downloaded. The default value is 01000000.
baud	Baud rate used for transferring the file. The default value is 115200.

Command Default

None

Command Modes

U-Boot (BOOT>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

For Cisco CMC, the baud rate must be set to 115200.

Examples

The following example shows how to load a file into the Cisco CMC RAM with Kermit protocol via serial line:

```
BOOT> loadb c00000 115200

## Ready for binary (kermit) download to 0x00C00000 at 115200 bps...
## Total Size      = 0x000045bf = 17855 Bytes
## Start Addr      = 0x00C00000
```

ping

To ping an IP address, use the **ping** command in normal mode and U-Boot mode.

ping *ip_address*

Syntax Description

ip_address	IP address.

Command Default

None

Command Modes

Normal (>)

U-Boot (BOOT>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

This command pings the specified IP address in the normal mode. This command sends ICMP ECHO_REQUEST to the network host in U-Boot mode.

Examples

The following example shows how to ping an IP address in normal mode:

```
CMC> ping 192.168.200.1

PING 192.168.200.1 (192.168.200.1): 56 data bytes
64 bytes from 192.168.200.1: icmp_seq=0 ttl=255 time=0.476 ms
64 bytes from 192.168.200.1: icmp_seq=1 ttl=255 time=0.362 ms
64 bytes from 192.168.200.1: icmp_seq=2 ttl=255 time=26.317 ms
64 bytes from 192.168.200.1: icmp_seq=3 ttl=255 time=0.450 ms
64 bytes from 192.168.200.1: icmp_seq=4 ttl=255 time=0.388 ms
64 bytes from 192.168.200.1: icmp_seq=5 ttl=255 time=0.705 ms
64 bytes from 192.168.200.1: icmp_seq=6 ttl=255 time=0.435 ms
64 bytes from 192.168.200.1: icmp_seq=7 ttl=255 time=0.433 ms
64 bytes from 192.168.200.1: icmp_seq=8 ttl=255 time=0.458 ms
--- 192.168.200.1 ping statistics ---
9 packets transmitted, 9 packets received, 0% packet loss
round-trip min/avg/max/stddev = 0.362/3.336/26.317/8.126 ms
0
CMC>
```

The following example shows how to ping an IP address in U-Boot mode:

```
BOOT> ping 192.168.200.4

Speed: 1000, full duplex
Using eTSEC2 device
host 192.168.200.4 is alive
```

powerreset

To power down the Cisco CMC and power it on again, use the **powerreset** command in U-Boot mode.

powerreset

Command Default

None

Command Modes

U-Boot (BOOT>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

This command does not power down the FRx module inside the Cisco CMC.

Examples

The following example shows how to power down and restart the Cisco CMC:

```
BOOT> powerreset
```

power reset

To power down the Cisco CMC and power it on again, use the **power reset** command in normal mode.

power reset

Command Default

None

Command Modes

Normal (>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

This command does not power down the FRx module inside the Cisco CMC.

Examples

The following example shows how to power down and restart the Cisco CMC:

```
CMC> power reset
```

printenv

To display the environment variables on the Cisco CMC, use the **printenv** command in U-Boot mode.

printenv

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

U-Boot (BOOT>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Examples

The following example shows how to display the environment variables:

```
BOOT> printenv

baudrate=115200
bdev=sda1
bootcmd=setenv bootargs root=/dev/ram rw console=$consoledev,$baudrate; bootm $loadaddr
$ramdiskaddr $fdtaddr
bootdelay=3
bootfile=uImage
bypass_fpga_dnld=0
consoledev=ttyS0
eth1addr=00:04:9F:01:81:19
ethact=eTSEC2
ethaddr=00:04:9F:01:80:19
ethprime=eTSEC2
fdtaddr=0xef100000
fdtfile=p1014cmc.dtb
fileaddr=1000000
filesize=AE9D9C
fpga_dnld_delay=3
gatewayip=192.168.1.1
hostname=P1014CMC
hwconfig=usb1:dr_mode=host,phy_type=utmi
ipaddr=192.168.1.77
loadaddr=0xedf00000
netdev=eth0
netmask=255.255.255.0
othbootargs=ramdisk_size=600000
ramboot=setenv bootargs root=/dev/ram rw console=$consoledev,$baudrate $othbootargs; tftp
$ramdiskaddr $ramdiskfile;tftp $loadaddr $bootfile;tftp $fdtaddr $fdtfile;bootm $loadaddr
$ramdiskaddr $fdtaddr
ramdiskaddr=0xee200000
ramdiskfile=rootfs_image
rootpath=/opt/nfsroot
serverip=172.16.0.2
uboot=u-boot.bin
usbext2boot=setenv bootargs root=/dev/ram rw console=$consoledev,$baudrate $othbootargs;
usb start;ext2load usb 0:4 $loadaddr $bootfile;ext2load usb 0:4 $fdtaddr $fdtfile;ext2load
```

```
 usb 0:4 $ramdiskaddr $ramdiskfile;bootm $loadaddr $ramdiskaddr $fdtaddr
usbfatboot=setenv bootargs root=/dev/ram rw console=$consoledev,$baudrate $othbootargs; usb
 start;fatload usb 0:2 $loadaddr $bootfile;fatload usb 0:2 $fdtaddr $fdtfile;fatload usb
0:2 $ramdiskaddr $ramdiskfile;bootm $loadaddr $ramdiskaddr $fdtaddr

Environment size: 1435/8188 bytes
```

Related Commands

Command	Description
setenv	Sets the environment variables.

quit

To return to the Cisco CMC welcome interface, use the **quit** command in privilege mode.

quit

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Privilege (#)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Examples

The following example shows how to return to the Cisco CMC welcome interface:

```
CMC# quit
Exit current session, The server is still running

Welcome to CISCO CMC
CMCMon login:
```

reboot

To restart the Cisco CMC, use the **reboot** command in normal mode.

reboot

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Normal (>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

The **reboot** command restarts the Cisco CMC without powering it down.

Examples

The following example shows how to restart the Cisco CMC:

```
CMC> reboot

CMC# Shutting down crond services:
/etc/rc.d/rcS: line 24: 3456 Terminated /etc/rc.d/init.d/$i $mode
Stopping the dropbear ssh server:
/etc/rc.d/rcS: line 24: 3461 Terminated /etc/rc.d/init.d/$i $mode
Stopping inetd:
/etc/rc.d/rcS: line 24: 3463 Terminated /etc/rc.d/init.d/$i $mode
Unmounting filesystems
umount: tmpfs busy - remounted read-only
umount: can't remount /dev/root read-only
umount: can't remount rootfs read-only
mount: mounting %root% on / failed: Device or resource busy
The system is going down NOW!
Sent SIGTERM to all processes
Sent SIGKILL to all processes
Requesting system reboot
Restarting system.


U-Boot 0.0.5

CPU: P1014E, Version: 1.0, (0x80f90110)
Core: E500, Version: 5.1, (0x80212151)
Clock Configuration:
CPU0:400 MHz,
CCB:266.667 MHz,
DDR:333.333 MHz (666.667 MT/s data rate) (Asynchronous), IFC:66.667 MHz
L1: D-cache 32 kB enabled
I-cache 32 kB enabled
Board: P1014CMC
I2C: ready
```

reset

To reset the CPU of the Cisco CMC, use the **reset** command in U-Boot mode.

reset

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

U-Boot (BOOT>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

This command resets the Cisco CMC without powering it down.

Examples

The following example shows how to reset the Cisco CMC CPU:

```
BOOT> reset
```

setenv

To set the environment variables on the Cisco CMC, use the **setenv** command in U-Boot mode.

setenv *name value*

Syntax Description

name	Environment variable name.
value	Environment variable value.

Command Default

None

Command Modes

U-Boot (BOOT>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Examples

The following example shows how to set an environment variable:

```
BOOT> setenv ipaddr 192.168.100.100
```

Related Commands

Command	Description
printenv	Displays the environment variables.

show df info

To show system df /dev/root information, use the **show df info** command in privilege mode.

show df info

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Privilege (#)

Command History

Release	Modification
Cisco CMC OS 1.1	This command was introduced on the Cisco CMC.

Usage Guidelines

Examples

The following example shows how to display the df information:

```
CMC# show df info

/dev/root                91691     51400     35683  59% /
Wed Mar  4 02:13:48 UTC 2015

/dev/root                91691     51395     35688  59% /
Wed Mar  4 02:03:48 UTC 2015

/dev/root                91691     51395     35688  59% /
Wed Mar  4 01:53:48 UTC 2015

/dev/root                91691     51395     35688  59% /
Wed Mar  4 01:43:48 UTC 2015

/dev/root                91691     51395     35688  59% /
Wed Mar  4 01:33:48 UTC 2015

/dev/root                91691     51395     35688  59% /
Wed Mar  4 01:23:48 UTC 2015
```

show dhcp status

To display the current Dynamic Host Configuration Protocol (DHCP) information, use the **show dhcp status** command in privilege mode.

show dhcp status

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Privilege (#)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Examples

The following example shows how to display the DHCP information for Cisco CMC:

```
CMC# show dhcp status

=================================================================
Interface        :  cmc_eth0
IP_Address       :  192.168.200.2
Netmask          :  255.255.255.128
Default_Gateway  :  192.168.200.1
DNS_Servers      :  None
Network_Domain   :  cisco.com
Hostname         :  None
Lease_Time       :  605400
sname            :  None
boot_file        :  config_nobpib.cm
CMC#
```

Table 1: show dhcp status Field Descriptions

Field	Description
Interface	Name of the interface.
IP_Address	IP address leased from the DHCP server for the interface.
Netmask	Subnet mask assigned to the interface.
Default_Gateway	IP address of the default gateway.

Field	Description
DNS_Servers	DNS servers.
Network_Domain	Network domain.
Hostname	Name of the host.
Lease_Time	Time (in seconds) for which the leased IP address is valid; the duration of the lease.
sname	FTP or TFTP address of the server from which the image can be upgraded.
boot_file	Name of the image used for upgrade.

show frx

To display information on the Forward Optical Receiver Module (FRx) installed in the Cisco CMC, use the **show frx** command in privilege mode.

show frx

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Privilege (#)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Examples

The following example shows how to display the FRx information on the Cisco CMC:

```
CMC# show frx

================================================================================
Controller Type : 0xbe2
PCB73PN : 73-15893-02
PCB800PN : 800-41661-01
Serial Number : 9sABCDEFGHI
PID : 0
VID : V02
Hardware Version : 2.0
Software Version : FRx_0.00.06
Temperature : 0x55
Timeinservice : 5
Optical Status : 0x3
AGC Status : 0x1
Optical Input : -1600
Attenuation : 0 (0.1db)
EQ : 90 (0.1db)
```

Table 2: show frx Field Descriptions

Field	Description
Controller Type	Controller used to identify the FRx.
PCB73PN	73- part number of the FRx Printed Circuit Board (PCB).
PCB800PN	800- part number of the FRx PCB.

Field	Description
Serial Number	Serial number of the FRx.
PID	Product Identifier (PID) of the FRx.
VID	Version Identifier (VID) of the FRx.
Hardware Version	Hardware version of the FRx.
Software Version	Software version of the FRx.
Temperature	Temperature of the FRx.
Timeinservice	Time for which the FRx is in service.
Optical Status	Status of the optical input power on the FRx. The value of this field can be one of the following: • 0x0—Normal optical input power • 0x2—Low optical input power • 0x3—No optical input power • 0x4—High optical input power
AGC Status	Status of Automatic Gain Control (AGC) on the FRx. The value of this field can be one of the following: • 0x1—Low gain • 0x2—High gain
Optical Input	Optical input power level of the FRx.
Attenuation	FRx attenuation value in dB.
EQ	FRx equalization value in dB.

Related Commands

Command	Description
show frx alarm	Displays the FRx alarm information on the Cisco CMC.

show frx alarm

To display alarm information for the Forward Optical Receiver Module (FRx) installed in the Cisco CMC, use the **show frx alarm**command in privilege mode.

show frx alarm

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Privilege (#)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Examples

The following example shows how to display the FRx alarm information on the Cisco CMC:

```
CMC# show frx alarm
FRx: No Optical, Low Optical, AGC low ALARM raised
```

Related Commands

Command	Description
show frx	Displays the FRx information on the Cisco CMC.

show gcp config command stats info

To display statistics information for the Generic Control Protocol (GCP) Exchange Data Structure (EDS) messages at *command* level, use the **show gcp config command stats info** command in privilege mode.

show gcp config command stats info

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Privilege (#)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

GCP EDS messages are classified based on *commands*, which are the modules, in GCP. Each *command* can contain many *operation codes*, for example, *get*, *set*, and so on. Each *operation code* can contain many Type Length Values (TLV).

This command displays the GCP statistics information when the Cisco CMC receives configuration commands from the Cisco CMTS.

Examples

The following example shows how to display the statistics information for GCP EDS messages at *command* level:

```
CMC# show gcp config command stats info

Name                                Rx        Tx       Error
==============================================================================
UEPI_PW                              9         0         0
BR_ATDMA                             5         5         0
BR_OFDMA                             0         0         0
BND_FFT                              0         0         0
OOB                                  0         0         0
ETHERNET_CFG                         0         0         0
TOD                                  0         0         0
DEBUG_MISC                           0         0         0
DEPI_PW                             16        16         0
CFG_QAM                              5         5         0
MAP_mapping                          4         4         0
MISC_CFG                             0         0         0
IMG_UPG                              0         0         0
CMC_STATS                            2         2         0
HW_FLOW_TABLE                        0         0         0
```

Table 3: show gcp config command stats info Field Descriptions

Field	Description
Name	Name of the *command* in the GCP EDS message.
Rx	Number of *commands* received in the message.
Tx	Number of *commands* sent in the message.
Error	Number of errors.

Related Commands

Command	Description
show gcp config subtype stats info	Displays statistics information for the GCP EDS messages at *TLV* level.
show gcp config op stats info	Displays statistics information for the GCP EDS messages at *operation code* level.

show gcp config op stats info

To display statistics information for the Generic Control Protocol (GCP) Exchange Data Structure (EDS) messages at *operation code* level, use the **show gcp config op stats info** command in privilege mode.

show gcp config op stats info

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Privilege (#)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

GCP EDS messages are classified based on *commands*, which are the modules, in GCP. Each *command* can contain many *operation codes*, for example, *get*, *set*, and so on. Each *operation code* can contain many Type Length Values (TLV).

This command displays the GCP statistics information for the contents of the configuration commands received from the Cisco CMTS.

Examples

The following example shows how to display the EDS operation statistics information:

```
CMC# show gcp config op stats info

Name                                          Rx         Tx        Error
================================================================================
SET_DEPI_PW                                   16         16         0
GET_DEPI_PW                                    0          0         0
SET_QAM_CHAN_DISABLE                           0          0         0
SET_QAM_CHAN_STARTUP                           4          4         0
SET_QAM_CHAN_UPDATE                            0          0         0
SET_QAM_PORT                                   0          0         0
GET_QAM_CHAN_CFG                               0          0         0
GET_QAM_PORT                                   0          0         0
SET_QAM_PWR_LVL                                1          1         0
SET_MAP_MAPPING                                4          4         0
GET_MAP_MAPPING                                0          0         0
SET_PW_TEMPLATE                                1          1         0
SET_BR_PW                                      4          4         0
SET_BW_REQ_PW                                  4          4         0
SET_FFT_PW                                     0          0         0
SET_BND_PW                                     0          0         0
SET_OOB_PW                                     0          0         0
GET_PW_TEMPLATE_CONFIG                         0          0         0
GET_BR_PW_CONFIG                               0          0         0
GET_BW_REQ_PW_CONFIG                           0          0         0
GET_FFT_PW_CONFIG                              0          0         0
```

```
GET_BND_PW_CONFIG                                0          0          0
GET_OOB_PW_CONFIG                                0          0          0
SET_BR_DISABLE                                   3          3          0
SET_BR_STARTUP                                   1          1          0
SET_BR_UPDATE                                    0          0          0
SET_INPUT_PWR_LVL                                1          1          0
SET_SID_QOS_TABLE                                0          0          0
GET_BR_CONFIG                                    0          0          0
GET_LCH_CONFIG                                   0          0          0
GET_SID_QOS_TABLE                                0          0          0
SET_FFT                                          0          0          0
SET_BND                                          0          0          0
SET_CMC_PWD                                      0          0          0
SET_CMC_TIME                                     0          0          0
START_IMG_UPG                                    0          0          0
GET_CMC_INFO                                     0          0          0
GET_CMC_DS_CNT                                   0          0          0
GET_CMC_US_UEPI_CNT                              0          0          0
GET_CMC_US_DMPI_CNT                              0          0          0
GET_FRx_INFO                                     0          0          0
SET_FRx_INFO                                     0          0          0
GET_CMC_CAPABILITY                               2          2          0
SET_HW_FLOW_TABLE                                0          0          0
GET_HW_FLOW_TABLE                                0          0          0
CMC#
```

Table 4: show gcp config op stats info Field Descriptions

Field	Description
Name	Name of the *operation code* in the GCP EDS message.
Rx	Number of *operation codes* received in the message.
Tx	Number of *operation codes* sent in the message.
Error	Number of errors.

Related Commands

Command	Description
show gcp config subtype stats info	Displays statistics information for the GCP EDS messages at *TLV* level.
show gcp config command stats info	Displays statistics information for the GCP EDS messages at *command* level.

show gcp config subtype stats info

To display statistics information for the Generic Control Protocol (GCP) Exchange Data Structure (EDS) messages at *Type Length Value (TLV)* level, use the **show gcp config subtype stats info** command in privilege mode.

show gcp config subtype stats info

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Privilege (#)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

GCP EDS messages are classified based on *commands*, which are the modules, in GCP. Each *command* can contain many *operation codes*, for example, *get*, *set*, and so on. Each *operation code* can contain many TLVs.

This command displays the GCP statistics information for the previous configuration commands received from the Cisco CMTS.

Examples

The following example shows how to display the EDS subtype statistics information:

```
CMC# show gcp config subtype stats info

Name                                          Rx          Tx       Error
==============================================================================
SET_DEPI_PW_CHAN_INFO                          0           0          0
SET_DEPI_PW_MODE                               0           0          0
SET_DEPI_PW_SESSION_ID                         0           0          0
SET_DEPI_PW_DST_IP                             0           0          0
SET_DEPI_PW_SRC_IP                             0           0          0
SET_DEPI_PW_VLAN                               0           0          0
SET_DEPI_PW_SYNC                               0           0          0
SET_QAM_CHAN_INFO                              0           0          0
SET_QAM_CHAN_FREQUENCY                         0           0          0
SET_QAM_CHAN_POWER                             0           0          0
SET_QAM_CHAN_MODULATION                        0           0          0
SET_QAM_CHAN_ANNEX                             0           0          0
SET_QAM_CHAN_SYMBOL_RATE                       0           0          0
SET_QAM_CHAN_INTERLEAVER_DEPTH                 0           0          0
SET_QAM_CHAN_RF_BLOCKING_MUTING                0           0          0
SET_QAM_PORT_EN_RF_CNT                         0           0          0
SET_QAM_PORT_EN_CON_CNT                        0           0          0
SET_MAP_MAPPING_CHAN_INFO                      0           0          0
SET_MAP_MAPPING_ENTRY                          4           4          0
UEPI_PW_MTU                                    8           8          0
UEPI_PW_HEADER_T                               1           1          0
```

```
UEPI_PW_QOS_PSP_T                              1          1          0
UEPI_PW_L2TP_SESSION                          12         12          0
UEPI_PW_BW_REQ_PWID                            4          4          0
UEPI_PW_BW_AGG                                 4          4          0
BR_ATDMA_INPUTID                               0          0          0
BR_ATDMA_FREQUENCY                             0          0          0
BR_ATDMA_SRATE                                 0          0          0
BR_ATDMA_PWR_LVL                               0          0          0
BR_ATDMA_ING_CAN_EN                            0          0          0
BR_ATDMA_IM_ALIGNED_FLAG                       0          0          0
BR_ATDMA_ARR_MODE                              0          0          0
BR_ATDMA_ARR_MODE_IUC                          0          0          0
BR_ATDMA_LOGIC_CHAN                            0          0          0
SET_BR_LOGIC_CHAN_BST_PRO                      0          0          0
SET_BR_STARING_SID_VALUE                       0          0          0
SET_BR_NUM_OF_ENTRY                            0          0          0
SET_BR_CCF_QOS_BYTES                           0          0          0
GET_BR_SID_VALUE                               0          0          0
GET_BR_SID_ALL_VALUE                           0          0          0
CMC#
```

Table 5: show gcp config subtype stats info Field Descriptions

Field	Description
Name	Name of the subtype at the *TLV* level in the GCP EDS message.
Rx	Number of subtypes received in the message.
Tx	Number of subtypes sent in the message.
Error	Number of errors.

Related Commands

Command	Description
show gcp config op stats info	Displays statistics information for the GCP EDS messages at *operation code* level.
show gcp config command stats info	Displays statistics information for the GCP EDS messages at *command* level.

show gcp profile

To display Generic Control Protocol (GCP) profile, use the **show gcp profile** command in privilege mode.

show gcp profile

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Privilege (#)

Command History

Release	Modification
Cisco CMC OS 1.1	This command was introduced on the Cisco CMC.

Examples

The following example shows how to display the gcp profile information:

```
CMC# show gcp profile

================================================================================
Trans-id          GCP-Recv       CFG_Parse        GCP-Send           Total
0                  0.00128         0.00000         0.00080         0.03120
```

Table 6: show gcp profile info Field Descriptions

Field	Description
Trans-id	ID of a specific transaction.
GCP-Recv	The time used for receiving the GCP packet.
CFG_Parse	The time used for parsing the GCP packet.
GCP-Send	The time used for respond the GCP packet.
Total	The time used by the transaction.

show gcp stats

To display the Generic Control Protocol (GCP) statistics, use the **show gcp stats** command in privilege mode.

show gcp stats

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Privilege (#)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

This command displays the GCP statistics information for the different types of messages received from the Cisco CMTS.

Examples

The following example shows how to display the GCP statistics:

```
CMC# show gcp stats info

Name                    Rx         Tx
================================================================================
Notify                   0          0
GDM                      3          3
EDS                     52         52
EDR                      0          0
MWR                      0          0
ERR                      0          0
```

Table 7: show gcp stats info Field Descriptions

Field	Description
Name	Name of the GCP EDS message.
Rx	Number of the received messages.
Tx	Number of the sent messages.

Related Commands

Command	Description
show gcp config op stats info	Displays statistics information for the GCP EDS messages at *operation code* level.
show gcp config command stats info	Displays statistics information for the GCP EDS messages at *command* level.
show gcp config subtype stats info	Displays statistics information for the GCP EDS messages at *TLV* level.

show hardware

To display the basic hardware information of the Cisco CMC, use the **show hardware** command in normal mode.

show hardware

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Normal (>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.
Cisco CMC OS 1.1	This command was modified. The output was modified to display the following information: • Vendor CPN • Vendor VID • Vendor PID

Examples

The following example shows how to display the hardware information:

```
CMC> show hardware

sfp:
       SFP 0 Information
Vendor Name    :  N/A
Vendor OUI(HEX):  N/A
Vendor PN      :  N/A
Vendor SN      :  N/A
Vendor Rev     :  N/A
       SFP 1 Information
Vendor Name    :  N/A
Vendor OUI(HEX):  N/A
Vendor PN      :  N/A
Vendor SN      :  N/A
Vendor Rev     :  N/A

psu:
       PSU IDPROM Information
IDPROM Version   :  N/A
Hardware Version :  N/A
PCB Serial Number:  N/A
73 level PN      :  N/A
Product Number   :  N/A
800 level PN     :  N/A
```

```
cpld status:
        CPLD SW Version: a524
        CPLD HW Version: 0001

quack:
EEPROM format version   : 04
Compatibility byte      : FF
Controller Type         : 0B E1
Hardware Revision       : 1.0
Part Number      (73)   : 73-15359-1
PCB Revision            : A0
Deviation Number        : 0-0
Fab Version             : 1
PCB Serial Number       : CSJ13152101
RMA Test History        : 00
RMA Number              : 0-0-0-0
RMA History             : 0
Part Number     (800)   : 800-41777-01
CLEI Code               : IPUCBDVBAA
Product Num/Id (PID)    : DOCSIS-CMC-4P-FN
Version Identifier (VID): V01
Chassis MAC Address     : 00:04:9f:01:81:19
MAC Address block size  : 2

CMC#
```

Effective with Cisco CMC OS 1.1, the output of the **show hardware** command was modified to display the vendor CPN, VID, and PID information:

```
CMC# show hardware

sfp:
        SFP 0 Information
Vendor Name    :  CISCO
Vendor OUI(HEX):  009065
Vendor PN      :  FTRJ8519P1BNL-C6
Vendor SN      :  Fyuy1089E2YR
Vendor Rev     :  A
Vendor CPN     :  10-2143-01
Vendor VID     :  V01
Vendor PID     :  SFP-GE-S

SFP1 is not present

psu:
        PSU IDPROM Information
Hardware Version      :  3.0
73 level PN           :  74-15360-02
PCB Revision          :  02
Deviation Number      :  0-0
PCB Fab Version       :  0
PCB Serial Number     :  CAT1825E269
800 Level PN          :  800-41662-02
```

Table 8: show hardware Field Descriptions

Field	Description
sfp	SFP information.
Vendor Name	Name of the vendor.
Vendor OUI(HEX)	Organizationally Unique Identifier (OUI) of the vendor.

Field	Description
Vendor PN	Part number for the vendor.
Vendor SN	Serial number for the vendor.
Vendor Rev	Revision number for the vendor.
Vendor CPN	Cisco part number for the vendor.
Vendor VID	Version identification for the vendor.
Vendor PID	Product number for the vendor.
psu	Power Supply Unit (PSU) information.
PSU IDPROM Information	IDPROM information of the PSU.
IDPROM Version	Version number of the IDPROM.
Hardware Version	Version number of the PSU hardware.
PCB Serial Number	Serial number of the PSU Printed Circuit Board (PCB).
73 level PN	73- part number of the PSU.
Product Number	Product number of the PSU.
800 level PN	800- part number of the PSU.
cpld status	Status of the Complex Programmable Logic Device (CPLD).
CPLD SW Version	Version of the CPLD software.
CPLD HW Version	Version of the CPLD hardware.
quack	Quack information.
EEPROM format version	Version of the EEPROM format.
Compatibility byte	Downward compatibility information.
Controller Type	Controller used to identify the Cisco CMC.
Hardware Revision	Revision number of the Cisco CMC hardware.
Part Number (73)	73- part number of the Cisco CMC.
PCB Revision	Revision number of the Cisco CMC PCB.

Field	Description
Deviation Number	Revision number (signifying a minor deviation) of the Cisco CMC.
Fab Version	Fabrication version of the Cisco CMC.
PCB Serial Number	Serial number of the Cisco CMC PCB.
RMA Test History	Counter indicating the number of times the Cisco CMC has been returned and repaired.
RMA Number	Return Material Authorization (RMA) number, which is an administrative number assigned if the Cisco CMC needs to be returned for repair.
RMA History	Counter indicating the number of times the Cisco CMC has been returned and repaired.
Part Number (800)	800- part number of the Cisco CMC.
CLEI Code	Common Language Equipment Identification (CLEI) number.
Product Num/Id (PID)	PID of the Cisco CMC.
Version Identifier (VID)	VID of the Cisco CMC.
Chassis MAC Address	MAC address of the Cisco CMC.
MAC Address block size	Block size of the MAC address.

Related Commands

Command	Description
show hardware alarm active	Displays the current alarm information on the Cisco CMC.
show hardware alarm history	Displays information on the history of all alarms the Cisco CMC.
show hardware alarm threshold	Displays the hardware alarm threshold of the Cisco CMC.

show hardware alarm active

To display the current information of the hardware sensor monitors on the Cisco CMC, use the **show hardware alarm active** in privilege mode.

show hardware alarm active

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Privilege (#)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

This command displays the current values and status of the hardware sensors monitors.

Examples

The following example shows how to display the information on current alarms:

```
CMC# show hardware alarm active

Name                Type           Unit            Value    Status
================================================================================
VP3P3_UPX_MON       voltage        V                3.308   normal
VP12P0_IN_MON       voltage        V               12.127   normal
VP5P0_MON           voltage        V                4.966   normal
VP3P3_MON           voltage        V                3.288   normal
VP5P0_UPX_MON       voltage        V                4.967   normal
VP1P8_MON           voltage        V                1.784   normal
VP1P0_CPU_MON       voltage        V                0.997   normal
VP0P75_VTT2_MON     voltage        V                0.746   normal
VP3P3_CLK_MON       voltage        V                3.307   normal
VP12P0_UPX_MON      voltage        V               11.681   normal
PSU_MON             voltage        V                0.000   N/A
VP1P8_UPX_MON       voltage        V                1.808   normal
VP2P5_US_MON        voltage        V                2.503   normal
VP3P6_MON           voltage        V                3.577   normal
VN1P5_MON           voltage        V               -1.516   normal
VP1P9_MON           voltage        V                1.901   normal
VP2P5_MON           voltage        V                2.512   normal
VP1P0_MON           voltage        V                0.994   normal
VP1P2_MON           voltage        V                1.199   normal
VP1P5_MON           voltage        V                1.507   normal
Clock               temperature    C               36.000   normal
DAC                 temperature    C               40.000   normal
Local               temperature    C               37.000   normal
FPGA                temperature    C               82.000   normal
CPU                 temperature    C               40.000   normal
PA                  temperature    C               48.000   normal
SFP                 temperature    C               26.500   normal
```

```
CURROUT_VP1P2      current        A               0.385    normal
CURROUT_VP1P0      current        A               0.746    normal
CURROUT_VP1P5      current        A               0.109    normal
CURROUT_VP1P8      current        A               0.185    normal
CURROUT_VP2P5      current        A               0.297    normal
CURROUT_VP3P6      current        A               0.343    normal
CURROUT_VP5P4      current        A               0.174    normal
CMC#
```

Table 9: show hardware alarm active Field Descriptions

Field	Description
Name	Name of the hardware sensor monitor.
Type	Type of the hardware sensor monitor. The type can be voltage, current, or temperature.
Unit	Unit used for monitoring the hardware sensor.
Value	Current value of the hardware sensor monitor.
Status	Status of the hardware sensor monitor.

Related Commands

Command	Description
show hardware	Displays the basic hardware information of the Cisco CMC.
show hardware alarm history	Displays information on the history of all alarms Cisco CMC.
show hardware alarm threshold	Displays the hardware alarm threshold of the Cisco CMC.

show hardware alarm history

To display information on the history of the hardware sensor monitors on the Cisco CMC, use the **show hardware alarm history** command in privilege mode.

show hardware alarm history

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Privilege (#)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

This command displays the history of values and status of the hardware sensor monitors.

Examples

The following example shows how to display the history of values and status of hardware sensor monitors on the Cisco CMC:

```
CMC# show hardware alarm history

Index Name            Type        Unit  Value Status        Time
-------------------------------------------------------------------------------
1     VP1P5_MON       voltage     V     1.507 normal        1970-01-01 00:05:36
2     VP1P2_MON       voltage     V     1.199 normal        1970-01-01 00:05:36
3     CURROUT_VP5P4   current     A     0.174 normal        1970-01-01 00:05:36
4     SFP             temperature C    26.500 normal        1970-01-01 00:05:36
5     VP1P0_MON       voltage     V     0.994 normal        1970-01-01 00:05:36
6     VP2P5_MON       voltage     V     2.512 normal        1970-01-01 00:05:35
7     VP1P9_MON       voltage     V     1.901 normal        1970-01-01 00:05:35
8     VN1P5_MON       voltage     V    -1.516 normal        1970-01-01 00:05:35
9     VP3P6_MON       voltage     V     3.577 normal        1970-01-01 00:05:35
10    VP2P5_US_MON    voltage     V     2.503 normal        1970-01-01 00:05:35
11    VP1P8_UPX_MON   voltage     V     1.808 normal        1970-01-01 00:05:34
12    PSU_MON         voltage     V     0.000 N/A           1970-01-01 00:05:34
13    VP12P0_UPX_MON  voltage     V    11.681 normal        1970-01-01 00:05:34
14    VP3P3_CLK_MON   voltage     V     3.307 normal        1970-01-01 00:05:34
15    VP0P75_VTT2_MON voltage     V     0.746 normal        1970-01-01 00:05:34
16    VP1P0_CPU_MON   voltage     V     0.997 normal        1970-01-01 00:05:33
17    VP1P8_MON       voltage     V     1.784 normal        1970-01-01 00:05:33
18    PA              temperature C    48.000 normal        1970-01-01 00:05:33
19    CPU             temperature C    40.000 normal        1970-01-01 00:05:33
20    VP5P0_UPX_MON   voltage     V     4.967 normal        1970-01-01 00:05:33
21    CURROUT_VP3P6   current     A     0.343 normal        1970-01-01 00:05:33
22    FPGA            temperature C    82.000 normal        1970-01-01 00:05:33
23    CURROUT_VP2P5   current     A     0.297 normal        1970-01-01 00:05:33
24    Local           temperature C    37.000 normal        1970-01-01 00:05:33
25    CURROUT_VP1P8   current     A     0.185 normal        1970-01-01 00:05:33
26    CURROUT_VP1P5   current     A     0.109 normal        1970-01-01 00:05:33
```

```
27    DAC             temperature C    40.000 normal        1970-01-01 00:05:33
28    CURROUT_VP1P0   current     A     0.746 normal        1970-01-01 00:05:33
29    CURROUT_VP1P2   current     A     0.385 normal        1970-01-01 00:05:33
30    VP3P3_MON       voltage     V     3.288 normal        1970-01-01 00:05:33
31    VP5P0_MON       voltage     V     4.966 normal        1970-01-01 00:05:32
32    Clock           temperature C    36.000 normal        1970-01-01 00:05:32
33    VP12P0_IN_MON   voltage     V    12.127 normal        1970-01-01 00:05:32
34    VP3P3_UPX_MON   voltage     V     3.308 normal        1970-01-01 00:05:32
--------------------------------------------------------------------------------
35    VP1P5_MON       voltage     V     1.506 normal        1970-01-01 00:00:32
36    VP1P2_MON       voltage     V     1.199 normal        1970-01-01 00:00:31
37    CURROUT_VP5P4   current     A     0.172 normal        1970-01-01 00:00:31
38    SFP             temperature C    26.500 normal        1970-01-01 00:00:31
39    VP1P0_MON       voltage     V     0.998 normal        1970-01-01 00:00:31
40    VP2P5_MON       voltage     V     2.513 normal        1970-01-01 00:00:31
41    VP1P9_MON       voltage     V     1.901 normal        1970-01-01 00:00:31
42    VN1P5_MON       voltage     V    -1.505 normal        1970-01-01 00:00:31
43    VP3P6_MON       voltage     V     3.577 normal        1970-01-01 00:00:30
44    VP2P5_US_MON    voltage     V     2.503 normal        1970-01-01 00:00:30
45    VP1P8_UPX_MON   voltage     V     1.809 normal        1970-01-01 00:00:30
46    PSU_MON         voltage     V     0.000 N/A           1970-01-01 00:00:30
47    VP12P0_UPX_MON  voltage     V    11.748 normal        1970-01-01 00:00:30
48    VP3P3_CLK_MON   voltage     V     3.307 normal        1970-01-01 00:00:29
49    VP0P75_VTT2_MON voltage     V     0.745 normal        1970-01-01 00:00:29
50    VP1P0_CPU_MON   voltage     V     0.997 normal        1970-01-01 00:00:29
51    VP1P8_MON       voltage     V     1.785 normal        1970-01-01 00:00:29
52    PA              temperature C    45.000 normal        1970-01-01 00:00:29
53    CPU             temperature C    36.000 normal        1970-01-01 00:00:29
54    VP5P0_UPX_MON   voltage     V     4.967 normal        1970-01-01 00:00:29
55    CURROUT_VP3P6   current     A     0.342 normal        1970-01-01 00:00:28
56    FPGA            temperature C    55.000 normal        1970-01-01 00:00:28
57    CURROUT_VP2P5   current     A     0.250 normal        1970-01-01 00:00:28
58    Local           temperature C    32.000 normal        1970-01-01 00:00:28
59    CURROUT_VP1P8   current     A     0.169 normal        1970-01-01 00:00:28
60    CURROUT_VP1P5   current     A     0.113 normal        1970-01-01 00:00:28
61    DAC             temperature C    35.000 normal        1970-01-01 00:00:28
62    CURROUT_VP1P0   current     A     0.443 normal        1970-01-01 00:00:28
63    CURROUT_VP1P2   current     A     0.385 normal        1970-01-01 00:00:28
64    VP3P3_MON       voltage     V     3.287 normal        1970-01-01 00:00:28
65    VP5P0_MON       voltage     V     4.966 normal        1970-01-01 00:00:28
66    Clock           temperature C    34.000 normal        1970-01-01 00:00:28
67    VP12P0_IN_MON   voltage     V    12.239 normal        1970-01-01 00:00:28
68    VP3P3_UPX_MON   voltage     V     3.309 normal        1970-01-01 00:00:28
--------------------------------------------------------------------------------
```

Table 10: show hardware alarm history Field Descriptions

Field	Description
Index	Index of the hardware sensor monitor.
Name	Name of the hardware sensor monitor.
Type	Type of the hardware sensor monitor. The type can be voltage, current, or temperature.
Unit	Unit used for monitoring the hardware sensor.
Value	Previous value of the hardware sensor monitor.
Status	Status of the hardware sensor monitor.
Time	Time at which the hardware sensor was monitored.

Related Commands

Command	Description
show hardware	Displays the basic hardware information of the Cisco CMC.
show hardware alarm active	Displays the current alarm information of the Cisco CMC.
show hardware alarm threshold	Displays the hardware alarm threshold of the Cisco CMC.

show hardware alarm threshold

To display the alarm threshold information for the hardware sensor monitors on the Cisco CMC, use the **show hardware alarm threshold** command in privilege mode.

show hardware alarm threshold

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Privilege (#)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

This command displays the threshold values for the hardware sensor monitors.

Examples

The following example shows how to display the hardware alarm threshold for the Cisco CMC:

```
CMC# show hardware alarm threshold

Name            Type          Unit       Min-      Low-      High-     Max-
                                         threshold threshold threshold threshold
================================================================================
VP3P3_UPX_MON   voltage       V              3.000     3.100     3.450     3.600
VP12P0_IN_MON   voltage       V             11.800    12.000    13.300    14.000
VP5P0_MON       voltage       V              4.600     4.750     5.300     5.400
VP3P3_MON       voltage       V              3.000     3.100     3.450     3.600
VP5P0_UPX_MON   voltage       V              4.500     4.750     5.300     5.500
VP1P8_MON       voltage       V              1.650     1.750     1.850     1.950
VP1P0_CPU_MON   voltage       V              0.900     0.950     1.100     1.200
VP0P75_VTT2_MON voltage       V              0.680     0.710     0.790     0.830
VP3P3_CLK_MON   voltage       V              3.000     3.100     3.500     3.600
VP12P0_UPX_MON  voltage       V             11.000    11.300    12.500    13.000
PSU_MON         voltage       V             20.000    22.000    92.000    94.000
VP1P8_UPX_MON   voltage       V              1.640     1.700     1.900     1.950
VP2P5_US_MON    voltage       V              2.300     2.350     2.650     2.700
VP3P6_MON       voltage       V              3.250     3.400     3.800     3.900
VN1P5_MON       voltage       V             -1.600    -1.570    -1.430    -1.400
VP1P9_MON       voltage       V              1.750     1.800     2.000     2.050
VP2P5_MON       voltage       V              2.300     2.400     2.650     2.750
VP1P0_MON       voltage       V              0.900     0.950     1.100     1.200
VP1P2_MON       voltage       V              1.100     1.150     1.250     1.300
VP1P5_MON       voltage       V              1.350     1.400     1.600     1.650
Clock           temperature   C            -40.000   -25.000    95.000   100.000
DAC             temperature   C            -40.000   -25.000    92.000   100.000
Local           temperature   C            -40.000   -25.000    95.000   100.000
FPGA            temperature   C            -40.000   -25.000    95.000   100.000
CPU             temperature   C            -40.000   -25.000    94.000    98.000
PA              temperature   C            -40.000   -25.000    92.000   100.000
```

```
SFP             temperature   C            -40.000   -25.000    95.000   100.000
CURROUT_VP1P2   current       A              0.000     0.000     0.508     1.129
CURROUT_VP1P0   current       A              0.000     0.000     0.940     1.223
CURROUT_VP1P5   current       A              0.000     0.000     0.141     1.129
CURROUT_VP1P8   current       A              0.000     0.000     0.254     1.016
CURROUT_VP2P5   current       A              0.000     0.000     0.352     1.411
CURROUT_VP3P6   current       A              0.000     0.000     0.508     1.694
CURROUT_VP5P4   current       A              0.000     0.000     0.508     2.541
CMC#
```

Table 11: show hardware alarm threshold Field Descriptions

Field	Description
Name	Name of the hardware sensor monitor.
Type	Type of the hardware sensor monitor. The type can be voltage, current, or temperature.
Unit	Unit used for monitoring the hardware sensor.
Min-threshold	Minimum threshold value of the hardware sensor monitor.
Low-threshold	Low threshold value of the hardware sensor monitor.
High-threshold	High threshold value of the hardware sensor monitor.
Max-threshold	Maximum threshold value of the hardware sensor monitor.

Related Commands

Command	Description
show hardware	Displays the basic hardware information of the Cisco CMC.
show hardware alarm active	Displays the current alarm information on the Cisco CMC.
show hardware alarm history	Displays information on the history of all alarms on the Cisco CMC.

show igmp status

To display the current Internet Group Management Protocol (IGMP) status, use the **show igmp status** command in privilege mode.

show igmp status

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Privilege (#)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Examples

The following example shows how to display the current IGMP status on the Cisco CMC:

```
CMC# show igmp status

Channel Status     Group               Port    Interface   Link-status
================================================================================
0       success    225.1.1.1           0       cmc_eth0    1(connected)
1       success    225.1.1.2           0       cmc_eth0    1(connected)
2       success    225.1.1.3           0       cmc_eth0    1(connected)
3       success    225.1.1.4           0       cmc_eth0    1(connected)
4       success    226.10.10.10        0       cmc_eth0    1(connected)
```

Table 12: show igmp status Field Descriptions

Field	Description
Channel	Downstream channel number.
Status	Status of the IGMP join.
Group	Multicast or broadcast address.
Port	Port used by the Cisco CMTS router.
Interface	Interface used by the Cisco CMTS router.
Link-status	Status of the link.

show log file

To display the Cisco CMC error log files, use the **show log file** command in privilege mode.

show log file *file-index*

Syntax Description

file-index	File index number. The valid range is from 0 to 4.

Command Default

None

Command Modes

Privilege (#)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

The error logs are stored in five files, and the lowest file index number contains the latest error log information.

Examples

The following example shows how to display the log file details for file index number 1:

```
CMC# show log file 0

1970-01-01 00:03:22,912 - ERROR - CMC IF Mon/DHCP Module suffers from DHCP:Cannot get the
IP address from CMTS, reboot...
1970-01-01 00:03:22,145 - ERROR - CMC IF Mon/DHCP Module suffers from DHCP:Cannot get the
IP address from CMTS, reboot...
1970-01-01 00:01:38,238 - ERROR - CMC GCP Module suffers from CMC will be rebooted...
1970-01-01 00:01:38,163 - ERROR - CMC GCP Module suffers from Rebooting the CMC...
1970-01-01 00:01:38,089 - ERROR - CMC GCP Module suffers from CMTS connection
[192.168.200.129, 6010] is lost
1970-01-01 00:00:34,518 - ERROR - CMC Management Module suffers from Cannot get the DHCP
offer in 10s, retrying...
1970-01-01 00:05:09,402 - ERROR - CMC GCP Module suffers from CMTS connection
[192.168.200.129, 6010] is lost
/usr/bin/cmcapp-1.0/cmc_cli_adapter/cmc_cli_adapter.py##423##client_unregister_handler
/usr/bin/cmcapp-1.0/cmc_cli_adapter/cmc_cli_adapter.py##548##parse_posix_message
/usr/bin/cmcapp-1.0/cmc_cli_adapter/cmc_cli_adapter.py##630##run
/usr/lib/python2.7/threading.py##551##__bootstrap_inner
/usr/lib/python2.7/threading.py##524##__bootstrap
--More-- (0% of 630884 bytes)
```

show onu

To display the Optical Network Unit (ONU) information, use the **show onu** command in normal mode.

show onu

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Normal (>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Examples

The following example shows how to display the ONU information:

```
CMC> show onu

ONU0:
TX Power : 0(0.1uW)
RX Power : 0(0.1uW)
Link Status : 0
MAC address : 00:23:c0:06:5c:90

ONU1:
TX Power     : 0(0.1uW)
RX Power     : 5(0.1uW)
Link Status  : 0
MAC address  : 20:00:7f:58:00:00
```

Table 13: show onu Field Descriptions

Field	Description
TX Power	Power transmitted from the ONU, in 0.1uW.
RX Power	Power received at the ONU, in 0.1uW.
Link Status	Link status of the ONU. The value of this field can be one of the following: • 0—Link is up • 1—Link is down

Field	Description
MAC address	MAC address of the ONU.

show psu

To display the Power Supply Unit (PSU) information, use the **show psu** command in privilege mode.

show psu

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Privilege (#)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Examples

The following example shows how to display the PSU status on the Cisco CMC:

```
CMC# show psu

==============================================================================
PSU = 60.000 Vac
CMC#
```

Table 14: show psu Field Descriptions

Field	Description
PSU	Value of the PSU.

show system

To display the basic system information of the Cisco CMC, use the **show system** command in normal mode.

show system

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Normal (>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

This command displays the basic system information of the Cisco CMC, including Product Identifier (PID), Serial Number (SN), MAC address, software image version, ROMMON version, FRx firmware version, reset reason, boot flags, and so on.

Examples

The following example shows how to display the basic system information on the Cisco CMC:

```
CMC> show system

PID : DOCSIS-CMC-4P-FN
SN : CSJ13152101
MAC : 00:02:3d:fe:fe:01
new image : 1.0(May 15 16:57:09 CST 2014)
old image : 20140515(May 09 14:30:15 CST 2014)
running version : 1.0(May 15 16:57:09 CST 2014)
new image location : bank 2
boot error indication : NO
remaining reboot count : 2
rommon version : 0.0.8
FRx Version : N/A
CMC reset reason : Power on
```

Table 15: show system Field Descriptions

Field	Description
PID	Product Identifier (PID) of the Cisco CMC.
SN	Serial number of the Cisco CMC.
MAC	MAC address of the Cisco CMC.

Field	Description
new image	Version of the new image version available on the Cisco CMC.
old image	Version of the old image on the Cisco CMC.
running version	Version of the image currently running on the Cisco CMC.
new image location	Bank (bank 1 or bank 2) in which the new image is located.
boot error indication	Indicates if there are errors during the reboot.
remaining reboot count	Counter indicating the number of remaining reboots after which the Cisco CMC boots with an image on the other bank.
rommon version	ROMMON version of the Cisco CMC.
FRx version	Firmware version of the FRx used in the Cisco CMC.
CMC reset reason	Reason for the previous reset of the Cisco CMC.

tftpboot

To boot the Cisco CMC with an image via network using TFTP, use the **tftpboot** command in U-Boot mode.

tftpboot *address filename*

Syntax Description

address	RAM address. The default RAM address is 0xedf00000.
filename	Name of the image. For the first power on, the default image name is uImage. **Note** After the first power on, the default image name is the last used image name.

Command Default

None

Command Modes

U-Boot (BOOT>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

This command downloads the image through TFTP to the Cisco CMC RAM.

Examples

The following example shows how to boot the Cisco CMC using an image via network using the TFTP :

```
BOOT> tftpboot 1000000 p1014cmc.dtb

Speed: 1000, full duplex
Using eTSEC2 device
TFTP from server 192.168.100.180; our IP address is 192.168.100.100
Filename 'p1014cmc.dtb'.
Load address: 0x1000000
Loading: ######
435.5 KiB/s
done
Bytes transferred = 26788 (68a4 hex)
```

unzip

To unzip a memory region, use the **unzip** command in U-Boot mode.

unzip *srcaddr dstaddr*

Syntax Description

srcaddr	Location of the zip file. The valid values are 0xEE000000 and 0xEE400000.
dstaddr	Location where the file is placed after unzip. The valid value is 0x01400000.

Command Default

None

Command Modes

U-Boot (BOOT>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Examples

The following example shows how to unzip a memory region:

```
BOOT> unzip 0xEE400000 0x01400000
Uncompressed size: 11443612 = 0xAE9D9C
```

upgrade system

To upgrade the Cisco CMC image by specifying the URL, use the **upgrade system** command in privilege mode.

upgrade system *url*

Syntax Description

url	Firmware URL where the image is available.

Command Default

None

Command Modes

Privilege (#)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

Cisco CMC supports FTP and TFTP for image upgrade. The URL can be in one of the following formats:

- **tftp:**//*ip_address*/*image_name*
- **ftp:**//*user:password@ip_address*/*image_name*

Note The URL is case-sensitive.

Examples

The following example shows how to upgrade the Cisco CMC version:

```
CMC#  upgrade system tftp://192.168.1.1/image-1.1.bin

Downloading the firmware…

Start to upgrade the CMC system...

!!!start upgrading firmware!!!
DO NOT power off until upgraded successfully!
Verify new package ...
Magic Number is OK!
Attention: CMC System Upgrade has Started.
Verify Checksum Succeed!
DTB, FPGA, KERNEL, ROOTFS are all included in package.
Check if same with running package ...
Running version:     0.25 => New version:     0.26
Upgrade Partition: 2
Linux rootfs upgrading...
```

```
Magic Number is OK!
Verify Checksum Succeed!
Pick Up File: rootfs_tmp Succeed!
Flash rootfs image to mtd1
Erasing blocks: 116/116 (100%)
Writing data: 14844k/14844k (100%)
Verifying data: 14844k/14844k (100%)
Extract build date time from rootfs file...
Extracted build time: May 09 14:58:24 CST 2014
.
.
.
```

version

To display the monitor, compiler, and linker version information for the Cisco CMC, use the **version** command in U-Boot mode.

version

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

U-Boot (BOOT>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

This command displays the U-Boot version used in Cisco CMC.

Examples

The following example shows how to display the monitor, compiler, and linker version information on the Cisco CMC:

```
BOOT> version

U-Boot 0.0.5 (Apr 11 2014 - 09:47:10)
powerpc-none-linux-gnuspe-gcc (GCC) 4.3.2
GNU Id (GNU Binutils) 2.18.50.20080215
```

?

To display the help information, use the **?** command in U-Boot mode.

?

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

U-Boot (BOOT>)

Command History

Release	Modification
Cisco CMC OS 1.0	This command was introduced on the Cisco CMC.

Usage Guidelines

The **?** command is an alias for the **help** command.

Examples

The following example shows how to display the help information in U-Boot mode:

```
BOOT> ?

? - alias for 'help'
autoboot- U-boot autoBoot
bootcmc - start cmc image via tftp
bootm - boot application image from memory
fpgadnld- a tool to upgrade the FPGA
help - print command description/usage
iminfo - print header information for application image
imls - list all images found in flash
loadb - load binary file over serial line (kermit mode)
ping - send ICMP ECHO_REQUEST to network host
powerreset- power reset
printenv- print environment variables
reset - Perform RESET of the CPU
setenv - set environment variables
tftpboot- boot image via network using TFTP protocol
unzip - unzip a memory region
version - print monitor, compiler and linker version
```