



# Basic Cisco SCE 8000 Platform Operations

---

Revised: September 23, 2015

## Introduction

This chapter describes how to start up the Cisco SCE 8000 platform, reboot, and shutdown. It also describes how to manage configurations:

- [Starting the Cisco SCE 8000 Platform, page 3-2](#)
- [Managing Configurations, page 3-4](#)
- [Example for Displaying the Cisco SCE Platform Version Information, page 3-9](#)
- [How to Display the SCE Platform Inventory, page 3-13](#)
- [How to Display the System Uptime, page 3-17](#)
- [Configuring the System Mode, page 3-17](#)
- [Configuring the IPv6 Prefix Length, page 3-18](#)
- [Rebooting and Shutting Down the Cisco SCE Platform, page 3-22](#)

# Starting the Cisco SCE 8000 Platform

The procedures for starting the Cisco SCE 8000 platform are explained in the following sections:

- [Checking Conditions Prior to System Startup, page 3-2](#)
- [Starting the System and Observing the Initial Conditions, page 3-2](#)
- [Final Tests, page 3-3](#)

## Checking Conditions Prior to System Startup

Check the following conditions before you start your Cisco SCE 8000 platform:

- Both power supply units are installed and connected. (If only one power supply is connected it will put the box in warning state.)
- First-time startup at installation:
  - Cisco SCE 8000 platform connected to local console (CON port)
  - The console terminal is turned on and properly configured
- Subsequent startups
  - Line interfaces are properly cabled (optional)
  - Cisco SCE 8000 platform is connected to at least one of the following types of management stations:
    - Direct connection to local console (CON port)
    - Remote management station via the LAN (Mng port)

## Starting the System and Observing the Initial Conditions

After installing your Cisco SCE 8000 platform and connecting cables, complete the following steps to start the Cisco SCE 8000 platform:

- 
- Step 1** Make sure the power cables are connected to the Cisco SCE 8000 platform.
  - Step 2** Plug the AC power supply cables into the AC power source, or make sure the circuit breakers at the DC panels are turned to the on position. Turn on the switches on both power supplies.
  - Step 3** Listen for the fans; you should immediately hear them operating.

- Step 4** During the boot process, observe the following LEDs on the Cisco SCE 8000 -SCM-E:
- The Power LEDs should be green.
  - Optical Bypass LED should be green while the Cisco SCE 8000 is in bypass and unlit when the optical bypass is turned off.
  - The Status LED should be a constant amber while booting. After a successful boot, the Status LED is steady green.

**Note**

---

It takes several minutes for Cisco SCE 8000 to boot and for the status LED to change from amber to green.

---

## Final Tests

The procedures for performing the final tests to verify that the Cisco SCE 8000 is functioning properly are explained in the following sections:

- [How to Verify Operational Status, page 3-3](#)
- [How to View the User Log Counters, page 3-4](#)

## How to Verify Operational Status

After all the ports are connected, verify that the Cisco SCE 8000 is not in a Warning state.

---

**Step 1** On the front panel of the Service Control module, examine the Status LED; it should be green.

**Step 2** To display the operation status of the system, at the Cisco SCE8000# prompt, type **show system operation-status** and press **Enter**.

A message displaying the operation status of the system appears. If the system is operating in order, the following message appears:

```
System Operation status is Operational.
```

If the Status LED is red or flashing amber, the following message appears:

```
System Operation status is Warning
Description:
1. Power Supply problem
2. Line feed problem
3. Amount of External bypass devices detected is lower than expected amount
```

---

## How to View the User Log Counters

View the user log for errors that occurred during the installation process.

At the SCE# prompt, type:

Command	Purpose
<code>show logger device user-file-log counters</code>	Shows the user log counters.

### Examples for Viewing the User Log Counters

The following example shows the current User-File-Log device counters.

```
SCE#show logger device user-file-log counters
Logger device User-File-Log counters:
Total info messages: 1
Total warning messages: 0
Total error messages: 0
Total fatal messages: 0
```

If there are “Total error messages” or “Total fatal messages”, use the `show logger device user-file-log` command to display details about the errors.

## Managing Configurations

This section contains the following topics:

- [Viewing Configurations, page 3-4](#)
- [How to Save or Change the Configuration Settings, page 3-5](#)
- [Restoring a Previous Configuration, page 3-7](#)

## Viewing Configurations

When you enter configuration commands, it immediately affects the Cisco SCE platform operation and configuration. This configuration, referred to as the running-config, is saved in the Cisco SCE platform volatile memory and is effective while the Cisco SCE platform is up. After reboot, the Cisco SCE platform loads the startup-config, which includes the non-default configuration that was saved by the user, into the running-config.

The Cisco SCE platform provides commands for:

- Viewing the running configuration with only user-configured (non-default) values: `show running-config`
- Viewing the running configuration with all the Cisco SCE platform running configuration values, whether default or not: `show running-config all-data`
- Viewing the startup configuration: `show startup-config`

After configuring the Cisco SCE platform, you may query for the running configuration using the command `show running-config`.

---

**Step 1** At the Cisco SCE8000# prompt, type `show running-config`.

The system shows the running configuration.

```
SCE8000#>show running-config
#This is a general configuration file (running-config).
#Created on 12:06:13 UTC SUN May 11 2009
#cli-type 1
#version 1
no management-agent notifications notification-list
1417,1418,804,815,1404,1405,1406,1407,1408,400
no management-agent notifications notification-list
402,421,440,441,444,445,446,450,437,457
no management-agent notifications notification-list 3593,3594,3595,10040
snmp-server community "public" ro
RDR-formatter forwarding-mode multicast
RDR-formatter destination 10.56.96.26 port 33000 category number 1 priority 100
RDR-formatter destination 10.56.96.26 port 33000 category number 2 priority 100
RDR-formatter destination 10.56.96.26 port 33000 category number 3 priority 100
RDR-formatter destination 10.56.96.26 port 33000 category number 4 priority 100
interface LineCard 0
connection-mode inline on-failure external-bypass
no silent
no shutdown
attack-filter subscriber-notification ports 80
replace spare-memory code bytes 3145728
interface GigabitEthernet 1/1
ip address 10.56.96.46 255.255.252.0
interface GigabitEthernet 3/0/0
bandwidth 10000000 burst-size 50000
global-controller 0 name "Default Global Controller"
interface GigabitEthernet 3/1/0
bandwidth 10000000 burst-size 50000
global-controller 0 name "Default Global Controller"
interface GigabitEthernet 3/2/0
bandwidth 10000000 burst-size 50000
global-controller 0 name "Default Global Controller"
interface GigabitEthernet 3/3/0
bandwidth 10000000 burst-size 50000
global-controller 0 name "Default Global Controller"

exit
ip default-gateway 10.56.96.1
line vty 0 4
exit
management-agent property "com.pcube.management.framework.install.activation.operation"
"Install"
management-agent property "com.pcube.management.framework.install.activated.package" "SCA
BB"
management-agent property "com.pcube.management.framework.install.activated.version"
"3.5.5 build 79"
management-agent property "com.pcube.management.framework.install.activation.date" "Sun
May 11 08:44:04 GMT+00:00 2009"
flow-filter partition name "ignore_filter" first-rule 4 num-rules 32
flow-filter partition name "udpPortsToOpenBySw" first-rule 40 num-rules 21
```

## How to Save or Change the Configuration Settings

When you make changes to the current running configuration and you want those changes to continue to be in effect when the system restarts, you must save the changes before leaving the management session. You do that by saving the running configuration to the startup configuration file.

The Cisco SCE platform provides multiple interfaces for the purpose of configuration and management. All interfaces supply an API to the same database of the Cisco SCE platform and any configuration made through one interface is reflected through all interfaces. Furthermore, when saving the running configuration to the startup configuration from any management interface, all configuration settings are saved regardless of the management interface used to set the configuration.

For backup purposes, the old startup-config file is saved under the directory: `/system/prevconf`. Refer to [“Restoring a Previous Configuration” section on page 3-7](#) for an explanation on how to restore a previous configuration.

To remove a configuration command from the running-config, use the **no** form of the command.

- 
- Step 1** At the SCE# prompt, type **show running-config** to view the running configuration.
- The running configuration is displayed.
- Step 2** Check the displayed configuration to make sure that it is set the way you want. If not, make the changes you want before saving.
- Step 3** Type **copy running-config startup-config**.
- The system saves all running configuration information to the configuration file, which is used when the system reboots.
- The configuration file holds all information that is different from the system default in a file called `config.txt` located in the directory: `/system`.
- 

## Example for Saving or Changing the Configuration Settings

The following example shows how to save the running configuration file (first displaying the file to review the settings).

```
SCE#show running-config
#This is a general configuration file (running-config).
#Created on 12:06:13 UTC SUN May 11 2009
#cli-type 1
#version 1
no management-agent notifications notification-list
1417,1418,804,815,1404,1405,1406,1407,1408,400
no management-agent notifications notification-list
402,421,440,441,444,445,446,450,437,457
no management-agent notifications notification-list 3593,3594,3595,10040
snmp-server community "public" ro
RDR-formatter forwarding-mode multicast
RDR-formatter destination 10.56.96.26 port 33000 category number 1 priority 100
RDR-formatter destination 10.56.96.26 port 33000 category number 2 priority 100
RDR-formatter destination 10.56.96.26 port 33000 category number 3 priority 100
RDR-formatter destination 10.56.96.26 port 33000 category number 4 priority 100
interface LineCard 0
connection-mode inline on-failure external-bypass
no silent
no shutdown
attack-filter subscriber-notification ports 80
replace spare-memory code bytes 3145728
interface GigabitEthernet 1/1
ip address 10.56.96.46 255.255.252.0
interface GigabitEthernet 3/0/0
bandwidth 10000000 burst-size 50000
global-controller 0 name "Default Global Controller"
interface GigabitEthernet 3/1/0
```

```

bandwidth 10000000 burst-size 50000
global-controller 0 name "Default Global Controller"
interface GigabitEthernet 3/2/0
bandwidth 10000000 burst-size 50000
global-controller 0 name "Default Global Controller"
interface GigabitEthernet 3/3/0
bandwidth 10000000 burst-size 50000
global-controller 0 name "Default Global Controller"

exit
ip default-gateway 10.56.96.1
line vty 0 4
exit
management-agent property "com.pcube.management.framework.install.activation.operation"
"Install"
management-agent property "com.pcube.management.framework.install.activated.package" "SCA
BB"
management-agent property "com.pcube.management.framework.install.activated.version"
"3.5.5 build 79"
management-agent property "com.pcube.management.framework.install.activation.date" "Sun
May 11 08:44:04 GMT+00:00 2008"
flow-filter partition name "ignore_filter" first-rule 4 num-rules 32
flow-filter partition name "udpPortsToOpenBySw" first-rule 40 num-rules 21
SCE#copy running-config startup-config
Writing general configuration file to temporary location...
Backing-up general configuration file...
Copy temporary file to final location...
SCE#

```

**Tip**


---

To remove a configuration command from the running-config, use the **no** form of the command.

---

The following example illustrates how to remove all DNS settings from the running configuration.

```
SCE(config)#no ip name-server
```

## Restoring a Previous Configuration

When you save a new configuration, the system automatically backs up the old configuration in the directory `/system/prevconf/`. Up to nine versions of the startup configuration file are saved, namely `config.tx1-config.tx9`, where `config.tx1` is the most recently saved file.

You can view the old startup configuration files using the CLI command **more**.

Restoring a previous startup configuration means renaming the file so it overwrites the startup configuration (`config.txt`) file.

- 
- Step 1** At the SCE# prompt, type **more /system/prevconf/config.tx1** to view the configuration file.  
The system displays the configuration information stored in the file.
  - Step 2** Read the configuration information to make sure it is the configuration you want to restore.  
Note that you cannot undo the configuration restore command.
  - Step 3** Type **copy /system/config.tx1 /system/config.txt**.  
The system sets the startup configuration to the configuration from `config.tx1`.
-

## Example for Restoring a Previous Configuration

The following example displays a saved configuration file and then restores the file to overwrite the current configuration.

```
SCE#more /system/prevconf/config.tx1
#This is a general configuration file (running-config).
#Created on 12:07:41 UTC SUN May 11 2009
#cli-type 1
#version 1
no management-agent notifications notification-list
1417,1418,804,815,1404,1405,1406,1407,1408,400
no management-agent notifications notification-list
402,421,440,441,444,445,446,450,437,457
no management-agent notifications notification-list 3593,3594,3595,10040
snmp-server community "public" ro
RDR-formatter forwarding-mode multicast
RDR-formatter destination 10.56.96.26 port 33000 category number 1 priority 100
RDR-formatter destination 10.56.96.26 port 33000 category number 2 priority 100
RDR-formatter destination 10.56.96.26 port 33000 category number 3 priority 100
RDR-formatter destination 10.56.96.26 port 33000 category number 4 priority 100
interface LineCard 0
connection-mode inline on-failure external-bypass
no silent
no shutdown
attack-filter subscriber-notification ports 80
replace spare-memory code bytes 3145728
interface GigabitEthernet 1/1
ip address 10.56.96.46 255.255.252.0
interface GigabitEthernet 3/0/0
bandwidth 10000000 burst-size 50000
global-controller 0 name "Default Global Controller"
interface GigabitEthernet 3/1/0
bandwidth 10000000 burst-size 50000
global-controller 0 name "Default Global Controller"
interface GigabitEthernet 3/2/0
bandwidth 10000000 burst-size 50000
global-controller 0 name "Default Global Controller"
interface GigabitEthernet 3/3/0
bandwidth 10000000 burst-size 50000
global-controller 0 name "Default Global Controller"

exit
ip default-gateway 10.56.96.1
line vty 0 4
exit
management-agent property "com.pcube.management.framework.install.activation.operation"
"Install"
management-agent property "com.pcube.management.framework.install.activated.package" "SCA
BB"
management-agent property "com.pcube.management.framework.install.activated.version"
"3.5.5 build 79"
management-agent property "com.pcube.management.framework.install.activation.date" "Sun
May 11 08:44:04 GMT+00:00 2009"
flow-filter partition name "ignore_filter" first-rule 4 num-rules 32
flow-filter partition name "udpPortsToOpenBySw" first-rule 40 num-rules 21
SCE#copy /system/config.tx1 /system/config.txt
```



# How to Display the Cisco SCE Platform Version Information

Use this command to display global static information on the Cisco SCE platform, such as software and hardware version, image build time, system uptime, last open packages names and information on the SLI application assigned.

From the SCE> prompt, type:

Command	Purpose
<code>show version</code>	Displays the Cisco SCE platform version information.

## Example for Displaying the Cisco SCE Platform Version Information

The following example shows how to display the Cisco SCE platform version information:

```
SCE> show version

System version: Version 3.7.5 Build 345
Build time: Feb 29 2012, 20:35:04 (Change-list 697063)
Software version is: Version 3.7.5 Build 345
Cryptography class: K9
Hardware information is:
=====
Module 1
=====

-----
Firmware
-----
kernel      : [kernel] 2.4.0/3 (inactive: [kernel] 2.4.0/3)
u-boot      : [uboot] 2.1.0/1 (field: [uboot] 0.8.1/18)
select      : [ubs-cf1] 2.4.0/3 (secondary: [ubs-cf1] 2.4.0/3)

-----

Slot 1: SCE8000-SCM-E
-----
serial-num  : CAT1326G027
part-num    : 73-10598-03
cpld        : 0x8274
vtpld       : 0xc004
summit-0    : 0xf2c1001
summit-1    : 0xf2c1101
dpt/tx      : 0x491f
cls/ff      : 0x2113
cls cam     : 0x454120
cls flow cap: 33554432
ssa         : 0x90

-----

TVR
-----
#cpus       : 1
cpu SVR     : 0x80900121
cpu PVR     : 0x80040202
cpu freq    : 1000MHz
cpu (eeprom): 2.1, 1000MHz
cpld        : 0xa1bc
```

```

cpld-ufm      : 0xa803
summit        : 0xf2c1701
cf            : Model=SMART CF, S/N=2008021302C418071807, FwRev=0x20060811, Size=4062240KB
phy-0         : 0xcc2
phy-1         : 0xcc2
phy-2         : 0xcc2

```

```

-----
CFC-0
-----

```

```

board type    : P2
#cpus         : 3
cpu-0 SVR     : 0x80900121
cpu-0 PVR     : 0x80040202
cpu-0 freq    : 1500MHz
cpu-1 SVR     : 0x80900121
cpu-1 PVR     : 0x80040202
cpu-1 freq    : 1500MHz
cpu-2 SVR     : 0x80900121
cpu-2 PVR     : 0x80040202
cpu-2 freq    : 1500MHz
cpu (eeprom) : 2.1, 1500MHz
cpld-0        : 0xb219
cpld-1        : 0xb219
cpld-2        : 0xb219
cpld-0-ufm    : 0xb803
cpld-1-ufm    : 0xb803
cpld-2-ufm    : 0xb803
summit-0      : 0xf2c1301
summit-1      : 0xf2c1401
fc            : 0x130e

```

```

-----
CFC-1
-----

```

```

board type    : P2
#cpus         : 3
cpu-0 SVR     : 0x80900121
cpu-0 PVR     : 0x80040202
cpu-0 freq    : 1500MHz
cpu-1 SVR     : 0x80900121
cpu-1 PVR     : 0x80040202
cpu-1 freq    : 1500MHz
cpu-2 SVR     : 0x80900121
cpu-2 PVR     : 0x80040202
cpu-2 freq    : 1500MHz
cpu (eeprom) : 2.1, 1500MHz
cpld-0        : 0xb219
cpld-1        : 0xb219
cpld-2        : 0xb219
cpld-0-ufm    : 0xb803
cpld-1-ufm    : 0xb803
cpld-2-ufm    : 0xb803
summit-0      : 0xf2c1301
summit-1      : 0xf2c1401
fc            : 0x130e

```

```

-----
Slot 3: SCE8000-SIP
-----

```

```

serial-num    : CAT1342G00V
part-num      : 73-10947-02
cpld          : 0x9274
summit-0      : 0xf2c1501

```

```

summit-1      : 0xf2c1601
dpt-0        : 0x3245
dpt-1        : 0x3245
ssa-0        : 0x90
ssa-1        : 0x90
CIO RLDRAM   : OK
spa[0]       : SPA-8X1GE
spa[1]       : no SPA
spa[2]       : no SPA
spa[3]       : no SPA

-----
SCE8000 Chassis
-----
product-num  : SCE8000
serial-num   : FOX1338HAA5
part-num     : 73-11293-02
part-rev    : A0
vid         : V02

=====
Module 2
=====

-----
Firmware
-----
kernel       : [kernel] 2.4.0/3 (inactive: [kernel] 2.4.0/3)
u-boot      : [uboot] 2.1.0/1 (field: [uboot] 0.8.1/18)
select      : [ubs-cf0] 2.4.0/3 (secondary: [ubs-cf0] 2.4.0/3)

-----
Slot 2: SCE8000-SCM-E
-----
serial-num   : CAT1230G001
part-num     : 73-10598-01
cpld        : 0x8274
vtpld       : 0xc003
summit-0    : 0xf2c1001
summit-1    : 0xf2c1101
dpt/tx      : 0x491f
cls/ff      : 0x2113
cls cam     : 0x454120
cls flow cap: 33554432
ssa         : 0x90

-----
TVR
-----
#cpus       : 1
cpu SVR     : 0x80900121
cpu PVR     : 0x80040202
cpu freq    : 1000MHz
cpu (eeprom): 2.1, 1000MHz
cpld        : 0xa1bb
cpld-ufm    : 0xa803
summit      : 0xf2c1701
cf          : Model=SILICONSYSTEMS INC 4GB-3213, S/N=B828318HCJY10916300C,
FwRev=0x242-0230, Size=4125744KB
phy-0       : 0xcc2
phy-1       : 0xcc2
phy-2       : 0xcc2

```

```

-----
CFC-0
-----
board type   : P2
#cpus       : 3
cpu-0 SVR   : 0x80900121
cpu-0 PVR   : 0x80040202
cpu-0 freq  : 1500MHz
cpu-1 SVR   : 0x80900121
cpu-1 PVR   : 0x80040202
cpu-1 freq  : 1500MHz
cpu-2 SVR   : 0x80900121
cpu-2 PVR   : 0x80040202
cpu-2 freq  : 1500MHz
cpu (eeprom): 2.1, 1500MHz
cpld-0      : 0xb217
cpld-1      : 0xb217
cpld-2      : 0xb217
cpld-0-ufm  : 0xb803
cpld-1-ufm  : 0xb803
cpld-2-ufm  : 0xb803
summit-0    : 0xf2c1301
summit-1    : 0xf2c1401
fc          : 0x130e

-----
CFC-1
-----
board type   : P2
#cpus       : 3
cpu-0 SVR   : 0x80900121
cpu-0 PVR   : 0x80040202
cpu-0 freq  : 1500MHz
cpu-1 SVR   : 0x80900121
cpu-1 PVR   : 0x80040202
cpu-1 freq  : 1500MHz
cpu-2 SVR   : 0x80900121
cpu-2 PVR   : 0x80040202
cpu-2 freq  : 1500MHz
cpu (eeprom): 2.1, 1500MHz
cpld-0      : 0xb217
cpld-1      : 0xb217
cpld-2      : 0xb217
cpld-0-ufm  : 0xb803
cpld-1-ufm  : 0xb803
cpld-2-ufm  : 0xb803
summit-0    : 0xf2c1301
summit-1    : 0xf2c1401
fc          : 0x130e

Part number      : 73-10598-03
Revision        : 1
Software revision : 1
LineCard S/N    : CAT1326G027
Power Supply type : AC

SML Application information is:
No application is configured.
Logger status: Enabled

Platform: SCE8000
Management agent interface version: SCE Agent 3.7.5 Build 300
Software package file: ftp://ftpserver/simba_03750345_K9.pkg
SCE8000 uptime is 1 weeks, 4 days, 17 hours, 28 minutes, 0 seconds

```

How to Display the SCE Platform Inventory

Unique Device Identification (UDI) is a Cisco baseline feature that is supported by all Cisco platforms. This feature allows network administrators to remotely manage the assets in their network by tracing specific devices through either CLI or SNMP. The user can display inventory information for a remote device via either:

- Entity MIB (see [ENTITY-MIB](#))
- CLI **show inventory** command

This command displays the UDIs only for field replaceable units (FRU).

- CLI **show inventory raw** command.

This command displays all UDIs on the Cisco SCE 8000 platform.

The **show inventory** CLI commands display the following information:

- *Device name*
- *Description*
- *Product identifier*
- *Version identifier*
- *Serial number*

From the SCE> prompt, type:

Command	Purpose
<b>show inventory [raw]</b>	Displays the Cisco SCE platform inventory.

## Examples for Displaying the Cisco SCE Platform Inventory

- [Displaying the Cisco SCE Platform Inventory: FRUs Only, page 3-13](#)
- [Displaying the Complete Cisco SCE Platform Inventory, page 3-14](#)

### Displaying the Cisco SCE Platform Inventory: FRUs Only

The following example shows how to display the inventory (UDIs) for the FRUs only.

```
SCE>show inventory
NAME: "SCE8000 Chassis", DESCR: "CISCO7604"
PID: CISCO7604          , VID: V0 , SN: FOX105108X5
NAME: "SCE8000 Service Control Module (SCM) in slot 1", DESCR: "SCE8000-SCM-E"
PID: SCE8000-SCM-E     , VID: V0 , SN: CAT1122584N
NAME: "SCE8000 SPA Interface Processor (SIP) in slot 3", DESCR: "SCE8000-SIP"
PID: SCE8000-SIP       , VID: V0 , SN: CAT1150G07F

NAME: "SCE8000 SPA module 3/0", DESCR: "SPA-8X1GE"
PID: SPA-8X1GE , VID: V01, SN: SAD12180111

NAME: "SCE8000 SPA module 3/1", DESCR: "SPA-8X1GE"
PID: SPA-8X1GE , VID: V01, SN: SAD1218013R

NAME: "SCE8000 SPA module 3/2", DESCR: "SPA-1X10GE-L-V2"
```

```

PID: SPA-1X10GE-L-V2 , VID: V02, SN: JAE1229PFRZ

NAME: "SCE8000 SPA module 3/3", DESCR: "SPA-1X10GE-L-V2"
PID: SPA-1X10GE-L-V2 , VID: V02, SN: JAE1229PFT

NAME: "SCE8000 FAN 1", DESCR: "FAN-MOD-4HS"
PID: FAN-MOD-4HS , VID: V0 , SN: DCH11013744

NAME: "SCE8000 AC or DC power supply 0", DESCR: "PWR-2700-AC/4"
PID: PWR-2700-AC/4 , VID: V0 , SN: APQ105000MV

NAME: "SCE8000 AC or DC power supply 1", DESCR: "PWR-2700-AC/4"
PID: PWR-2700-AC/4 , VID: V0 , SN: APQ105000MV

NAME: "XFP-10GLR-OC192SR ", DESCR: "XFP-10GLR-OC192SR "
PID: XFP-10GLR-OC192SR , VID: V02, SN: AGA1142N4B7

NAME: "XFP-10GLR-OC192SR ", DESCR: "XFP-10GLR-OC192SR "
PID: XFP-10GLR-OC192SR , VID: V02, SN: AGA1142N4AL

NAME: "XFP-10GLR-OC192SR ", DESCR: "XFP-10GLR-OC192SR "
PID: XFP-10GLR-OC192SR , VID: V02, SN: AGA1141N43R

NAME: "XFP-10GLR-OC192SR ", DESCR: "XFP-10GLR-OC192SR "
PID: XFP-10GLR-OC192SR , VID: V02, SN: AGA1143N4JN

```

## Displaying the Complete Cisco SCE Platform Inventory

The following example shows how to display the complete inventory (UDIs) of the Cisco SCE platform.

```
SCE> show inventory raw
```

```

"SCE8000 Chassis", DESCR: "CISCO7604"
PID: CISCO7604 , VID: V01, SN: FOX105108X5

NAME: "SCE8000 Physical Slot 1", DESCR: "Container SCE8000 Service Control Module (SCM)
slot"
PID: " " , VID: " " , SN: " "

NAME: "SCE8000 Physical Slot 2", DESCR: "Container SCE8000 Service Control Module (SCM)
slot"
PID: " " , VID: " " , SN: " "

NAME: "SCE8000 Physical Slot 3", DESCR: "Container SCE8000 SPA Interface Processor (SIP)
slot"
PID: " " , VID: " " , SN: " "

NAME: "SCE8000 Physical Slot 4", DESCR: "Container SCE8000 Optical Bypass slot"
PID: " " , VID: " " , SN: " "

NAME: "SCE8000 Fan Module", DESCR: "Container SCE8000 Fan Module"
PID: " " , VID: " " , SN: " "

NAME: "SCE8000 AC and DC power supply", DESCR: "Container SCE8000 AC and DC power supply"
PID: " " , VID: " " , SN: " "

NAME: "SCE8000 Link", DESCR: "Container SCE8000 Link"
PID: " " , VID: " " , SN: " "

NAME: "SCE8000 Backplane", DESCR: "Container SCE8000 Backplane "
PID: " " , VID: " " , SN: " "

```

```
NAME: "SCE8000 Service Control Module (SCM) in slot 1", DESCR: "SCE8000-SCM-E"  
PID: SCE8000-SCM-E      , VID: V01, SN: CAT1122584N  
  
NAME: "SCE8000 SPA Interface Processor (SIP) in slot 3", DESCR: "SCE8000-SIP"  
PID: SCE8000-SIP      , VID: V01, SN: CAT1150G07F  
  
NAME: "SCE8000 Link 0", DESCR: "SCE8000 Link"  
PID: ""                , VID: "" , SN: ""  
  
NAME: "SCE8000 Link 1", DESCR: "SCE8000 Link"  
PID: ""                , VID: "" , SN: ""  
  
NAME: "SCE8000 SIP bay 3/0", DESCR: "SCE8000 SIP bay"  
PID: ""                , VID: "" , SN: ""  
  
NAME: "SCE8000 SIP bay 3/1", DESCR: "SCE8000 SIP bay"  
PID: ""                , VID: "" , SN: ""  
  
NAME: "SCE8000 SIP bay 3/2", DESCR: "SCE8000 SIP bay"  
PID: ""                , VID: "" , SN: ""  
  
NAME: "SCE8000 SIP bay 3/3", DESCR: "SCE8000 SIP bay"  
PID: ""                , VID: "" , SN: ""  
  
NAME: "SCE8000 SPA module 3/0", DESCR: "PA-8X1IGE"  
PID: SPA-8X1IGE      , VID: V02, SN: JAE11517RMR  
  
NAME: "SCE8000 SPA module 3/1", DESCR: "SPA-8X1IGE"  
PID: SPA-8X1IGE      , VID: V02, SN: JAE11496E1P  
  
NAME: "SCE8000 SPA module 3/2", DESCR: "SPA-1X10GE-L-V2"  
PID: SPA-1X10GE-L-V2 , VID: V02, SN: JAE11517RIO  
  
NAME: "SCE8000 SPA module 3/3", DESCR: "SPA-1X10GE-L-V2"  
PID: SPA-1X10GE-L-V2 , VID: V02, SN: JAE115295HH  
  
NAME: "GigabitEthernet3/0/0", DESCR: "SCE8000 SPA port"  
PID: ""                , VID: "" , SN: ""  
  
NAME: "GigabitEthernet3/1/0", DESCR: "SCE8000 SPA port"  
PID: ""                , VID: "" , SN: ""  
  
NAME: "TenGigabitEthernet3/2/0", DESCR: "SCE8000 SPA port"  
PID: ""                , VID: "" , SN: ""  
  
NAME: "TenGigabitEthernet3/3/0", DESCR: "SCE8000 SPA port"  
PID: ""                , VID: "" , SN: ""  
  
NAME: "SCE8000 FAN 1", DESCR: "FAN-MOD-4HS"  
PID: FAN-MOD-4HS     , VID: V01, SN: DCH11013744  
  
NAME: "SCE8000 AC power supply 0", DESCR: "PWR-2700-AC/4"  
PID: PWR-2700-AC/4   , VID: V02, SN: APQ10500MV  
  
NAME: "SCE8000 DC power supply 1", DESCR: "PWR-2700-DC/4"  
PID: PWR-2700-DC/4   , VID: V03, SN: APQ1049000S  
  
NAME: "SCE8000 optic 3/0/0", DESCR: "XFP-10GLR-OC192SR "  
PID: XFP-10GLR-OC192SR , VID: V02, SN: AGA1142N4B7  
  
NAME: "SCE8000 optic 3/1/0", DESCR: "XFP-10GLR-OC192SR "  
PID: XFP-10GLR-OC192SR , VID: V02, SN: AGA1142N4AL
```

```
NAME: "SCE8000 optic 3/2/0", DESCR: "XFP-10GLR-OC192SR "  
PID: XFP-10GLR-OC192SR , VID: V02, SN: AGA1141N43R  
  
NAME: "SCE8000 optic 3/3/0", DESCR: "XFP-10GLR-OC192SR "  
PID: XFP-10GLR-OC192SR , VID: V02, SN: AGA1143N4JN  
  
NAME: "SCE8000 traffic processor 1", DESCR: "SCE8000 traffic processor"  
PID: " " , VID: " " , SN: " "  
  
NAME: "SCE8000 traffic processor 2", DESCR: "SCE8000 traffic processor"  
PID: " " , VID: " " , SN: " "  
  
NAME: "SCE8000 traffic processor 3", DESCR: "SCE8000 traffic processor"  
PID: " " , VID: " " , SN: " "  
  
NAME: "SCE8000 traffic processor 4", DESCR: "SCE8000 traffic processor"  
PID: " " , VID: " " , SN: " "  
  
NAME: "SCE8000 traffic processor 5", DESCR: "SCE8000 traffic processor"  
PID: " " , VID: " " , SN: " "  
  
NAME: "SCE8000 traffic processor 6", DESCR: "SCE8000 traffic processor"  
PID: " " , VID: " " , SN: " "  
  
NAME: "SCE8000 traffic processor 7", DESCR: "SCE8000 traffic processor"  
PID: " " , VID: " " , SN: " "  
  
NAME: "SCE8000 traffic processor 8", DESCR: "SCE8000 traffic processor"  
PID: " " , VID: " " , SN: " "  
  
NAME: "SCE8000 traffic processor 9", DESCR: "SCE8000 traffic processor"  
PID: " " , VID: " " , SN: " "  
  
NAME: "SCE8000 traffic processor 10", DESCR: "SCE8000 traffic processor"  
PID: " " , VID: " " , SN: " "  
  
NAME: "SCE8000 traffic processor 11", DESCR: "SCE8000 traffic processor"  
PID: " " , VID: " " , SN: " "  
  
NAME: "SCE8000 traffic processor 12", DESCR: "SCE8000 traffic processor"  
PID: " " , VID: " " , SN: " "
```



## How to Display the System Uptime

Use this command to see how long the system has been running since the last reboot.

At the SCE>prompt, type:

Command	Purpose
<code>show system-uptime</code>	Displays the system uptime.

## Example for Displaying the System Uptime

The following example shows how to display the system uptime of the Cisco SCE platform.

```
SCE#show system-uptime
Cisco SCE8000 uptime is 21 minutes, 37 seconds
```

## Configuring the System Mode

The Cisco SCE 8000 devices operates in one the following system modes:

- IPv4 only system mode—All traffic processors handle only IPv4 traffic.
- IPv6 only system mode—All traffic processors handle only IPv6 traffic.
- Dual stack system mode—Default system mode. All traffic processors handle both IPv4 and IPv6 traffic. Dual static subscribers can either be configured statically on the device or they can be configured through Gx. The number of subscriber mappings in the device is divided between IPv4 and IPv6 based on the const -db value.

The system mode is configured by modifying the value of the `seCommonConstDb.box.ipv6MappingsPercentage` const -db.

The default value of the `seCommonConstDb.box.ipv6MappingsPercentage` const-db is 20. Dual stack mode is active if the value is between 1 and 99. IPv4 mode is active when the value is 0 and IPv6 mode when the value is 100.

To configure the IPv4 only mode, follow these steps:

- 
- Step 1** Enter the Global Configuration mode:
- ```
SCE8000# configure
```
- Step 2** Configure the IPv4 only mode:
- From the Global Configuration prompt, enter `debug const-db name seCommonConstDb.box.ipv6MappingsPercentage value 0` and press **Enter**.
- Step 3** Copy the running configuration to the startup configuration:
- ```
SCE8000#> copy running-config startup-config
```
- Step 4** Reboot the Cisco SCE 8000 device.
- 

To configure the IPv6 only mode, follow these steps:

- 
- Step 1** Enter the Global Configuration mode:  
SCE8000# **configure**
- Step 2** Configure the IPv6 only mode:  
From the Global Configuration prompt, enter **debug const db seCommonConstDb.box.ipv6MappingsPercentage value 100** and press **Enter**.
- Step 3** Copy the running configuration to the startup configuration:  
SCE8000#> **copy running-config startup-config**  
Reboot the Cisco SCE 8000 device.
- 

To configure dual stack mode with a value 30 (other than the default value 20), follow these steps:

- 
- Step 1** Enter the Global Configuration mode:  
SCE8000# **configure**
- Step 2** Configure the dual stack mode with value 30:  
From the Global Configuration prompt, enter **debug const db seCommonConstDb.box.ipv6MappingsPercentage value 30** and press **Enter**.
- Step 3** Copy the running configuration to the startup configuration:  
SCE8000#> **copy running-config startup-config**
- Step 4** Reboot the Cisco SCE 8000 device.
- 

## Configuring the IPv6 Prefix Length

Cisco SCE 8000 devices identifies the IPv6 subscribers based on the MSB 64 bits of the subscriber IPv6 address. Cisco SCE 8000 devices support IPv6 subscribers with a range of /32 to /64 and not less than /32.

You can configure the IPv6 prefix length using the **const -db seCommonConstDb.box.ipv6SystemPrefixLength** command. The value of IPv6 prefix length can be between 32 and 64 and the default value is 64. The changes will be effective only after you copy the running configuration to the startup configuration and restart the device.

The Cisco SCE 8000 device restricts static subscriber configuration to use prefixes greater than 31. If the Gx CCA-I reaches the device with a Framed-IPV6-Prefix with prefix delegation less than 32, it is ignored and subscriber stays as anonymous.

To configure the IPv6 Prefix Length 48, follow these steps:

- 
- Step 1** Enter the Global Configuration mode:  
SCE8000# **configure**
- Step 2** Configure the IPv6 prefix length:  
From the Global Configuration prompt, enter **debug const-db name seCommonConstDb.box.ipv6SystemPrefixLength value 48** and press **Enter**.

- Step 3** Copy the running configuration to the startup configuration:  
SCE8000#> **copy running-config startup-config**
- Step 4** Reboot the Cisco SCE 8000 device.

You can configure the system mode and prefix length together. The configuration will be effective with a single reload.

Based on the IPv6 prefix length, corresponding number of MSB bits (from the total 128 bits) will be used to identify subscribers.

For example, if the system prefix length is 48 for a party mapping configuration **party mapping ipv6-address** *1234:abcd:2123:abc:0:0:1e:0* **name** *test*, only MSB 48 bits *1234:abcd:2123* is considered for identifying subscriber *test*.

## Monitoring Control Processor CPU Utilization

You can monitor the CPU utilization of the control processor by displaying the actual load on the control processor. This feature provides visibility into the performance envelop of the Control processor under different management schemes.

Information regarding CPU utilization is available using any of the following methods:

- **SNMP**—The Cisco Process MIB shows the CPU utilization of both the control processor and the traffic processors. An SNMP walk on the `cpmCPUTotalTable` provides information regarding overall CPU statistics.
- **CLI commands**—The following admin level CLI commands can be used to monitor CPU utilization:
  - **show processes cpu**
  - **show processes cpu sorted**
  - **show snmp MIB cisco-process**
- **Cisco SCE support file**—The entire measured CPU utilization of the control processor, as well as a number of specific internal tasks that were marked important to track, is written to the Cisco SCE log files, which are part of the Cisco SCE support file. This data can be used to monitor the CPU utilization trend of the control processor and the specific internal tasks over time or to view the CPU utilization required for a specific event.

## CLI Commands for Monitoring Control Processor CPU Utilization

Use this command to display the CPU utilization of the control processor.

From the SCE> prompt, type:

Command	Purpose
<b>show processes cpu [sorted]</b>	Displays the CPU utilization of the control processor.



Tip

To display the CPU history sorted by percentage of utilization, use the **sorted** keyword.

## Example for Monitoring Control Processor CPU Utilization

The following example shows how to display the CPU utilization of the control processor.

SCE>**show processes cpu**

```

CORE_0 CPU utilization for five seconds: 100%/ 0%; one minute: 81%; five minutes: 38%
PID  Runtime(ms)   Invoked    uSecs   5Sec   1Min   5Min  TTY Process
  1      78790         6374      0 0.00% 0.00% 0.00% 0 (init)
  2         10           1         0 0.00% 0.00% 0.00% 0 (kthreadd)
  3      5010         501        0 0.00% 0.00% 0.00% 0 (migration/0)
  4         90           9         0 0.00% 0.00% 0.00% 0 (ksoftirqd/0)
  5     63130         6313      0 0.00% 0.00% 0.00% 0 (watchdog/0)
  6      4940         494        0 0.00% 0.00% 0.00% 0 (migration/1)
  7         0           0         0 0.00% 0.00% 0.00% 0 (ksoftirqd/1)
  8     10530         1053      0 0.00% 0.00% 0.00% 0 (watchdog/1)
  9    2606490        207337    0 0.00% 0.02% 0.03% 0 (events/0)
 10   1246730        123793    0 0.00% 0.02% 0.02% 0 (events/1)
 11         0           0         0 0.00% 0.00% 0.00% 0 (khelper)
 12   177810         17781    0 0.00% 0.00% 0.00% 0 (kblockd/0)
 13      8010         801        0 0.00% 0.00% 0.00% 0 (kblockd/1)
 16         0           0         0 0.00% 0.00% 0.00% 0 (kswapd0)
 17         0           0         0 0.00% 0.00% 0.00% 0 (aio/0)
 18         0           0         0 0.00% 0.00% 0.00% 0 (aio/1)
 19         0           0         0 0.00% 0.00% 0.00% 0 (nfsiod)
 20         0           0         0 0.00% 0.00% 0.00% 0 (mtdblockd)
 21   1198570        119326    0 0.00% 0.02% 0.02% 0 (skynet)
 22   7413850        741207    0 0.00% 0.11% 0.10% 0 (hw-mon-regs)
 23   556170         49614    0 0.00% 0.02% 0.01% 0 (scos-dump)
 24   527310         52718    0 0.00% 0.00% 0.01% 0 (wdog-kernel)

```

The following table lists and describes the fields in the **show processes cpu** output.

**Table 3-1** *show processes cpu Command Output Fields*

Field	Description
CPU utilization for five seconds	CPU utilization for the last five seconds. The first number indicates the total, the second number indicates the percent of CPU time spent at the interrupt level.
one minute	CPU utilization for the last minute
five minutes	CPU utilization for the last five minutes
PID	The process ID
Runtime (msecs)	CPU time the process has used, expressed in msecs
Invoked	The number of times the process has been invoked (progress once every 5sec)
uSecs	Microseconds of CPU time for each process invocation
5Sec	CPU utilization by task in the last five seconds
1Min	CPU utilization by task in the last minute
5Min	CPU utilization by task in the last five minutes

**Table 3-1** *show processes cpu Command Output Fields (continued)*

Field	Description
TTY	Currently not relevant in the Cisco Service Control system.
Process	Name of the process. For more information, refer to The Processes section of this document. <b>Note</b> Linux tasks are also presented as processes.

**Note**

When CPU utilization is higher than about 90%, the CPU utilization per task is not reliable and can sum to more than 100%. This is because high CPU utilization can influence the task that samples CPU utilization.

# Rebooting and Shutting Down the Cisco SCE Platform

- [Rebooting the Cisco SCE Platform, page 3-22](#)
- [How to Shut Down the Cisco SCE Platform, page 3-22](#)

## Rebooting the Cisco SCE Platform

Rebooting the Cisco SCE platform is required after installing a new package, in order for that package to take effect. There might be other occasions where rebooting the Cisco SCE platform is necessary.



### Note

When the Cisco SCE restarts, it loads the startup configuration, so all changes made in the running configuration will be lost. You are advised to save the running configuration before performing reload, as described in [“How to Save or Change the Configuration Settings” section on page 3-5](#).

- 
- Step 1** At the SCE# prompt, type **reload** and press **Enter**.  
A confirmation message appears.
- Step 2** Press **Enter** to confirm the reboot request (accept default, which is ‘Yes’).
- 

## Examples for Rebooting the Cisco SCE Platform

The following example shows the commands for system reboot.

```
SCE# reload
Are you sure? Y.
the system is about to reboot, this will end your CLI session
```

## How to Shut Down the Cisco SCE Platform

Shutting down the Cisco SCE platform is required before turning the power off. This helps to ensure that non-volatile memory devices in the Cisco SCE platform are properly flushed in an orderly manner.



### Note

When the Cisco SCE platform restarts, it loads the startup configuration, so all changes made in the running configuration will be lost. You are advised to save the running configuration before performing reload, as described in [“How to Save or Change the Configuration Settings” section on page 3-5](#).

- 
- Step 1** Connect to the serial console port (The CON connector on the front panel of the Service Control module in slot #1, 9600 baud).  
The SCE# prompt appears.
- Step 2** Type **reload shutdown**.  
A confirmation message appears.
- Step 3** Type **y** to confirm the shutdown request and press **Enter**.
-

## Example for Shutting Down the Cisco SCE Platform

The following example shows the commands for system shutdown.

```
SCE# reload shutdown
```

```
You are about to shut down the system.  
The only way to resume system operation after this  
is to cycle the power off, and then back on.  
Continue?  
Y  
IT IS NOW SAFE TO TURN THE POWER OFF.
```

**Note**

---

Since the Cisco SCE platform can recover from the power-down state only by being physically turned off (or cycling the power), this command can only be executed from the serial CLI console. This limitation helps prevent situations in which users issue this command from a Telnet session, and then realize that they have no physical access to the Cisco SCE platform.

---

