Basic Cisco SCE 2000 Platform Operations

Revised: December 23, 2013, OL-30624-01

Introduction

This chapter describes how to start up the Cisco SCE 2000 platform, reboot, and shutdown. It also describes how to manage configurations.

Starting the Cisco SCE 2000 Platform

The procedures for starting the Cisco SCE 2000 platform are explained in the following sections:

Checking Conditions Prior to System Startup

Check the following conditions before you start your Cisco SCE 2000 platform:

- Both power supply units are installed and connected
- First-time startup at installation:
  - Cisco SCE 2000 platform connected to local console (CON port)
  - The console terminal is turned on and properly configured
- Subsequent startups
  - Line and Cascade interfaces are properly cabled (optional)
  - Cisco SCE 2000 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)

Performing Complex Configurations

After you have installed your Cisco SCE 2000 platform hardware, checked all external connections, turned on the system power, allowed the system to boot up, and performed the initial system configuration, you might need to perform more complex configurations, which are beyond the scope of this publication.

For further information on system and interface configuration, refer to the following documents:

- *Cisco SCE2000 and SCE1000 Software Configuration Guide*
- *Cisco SCE2000 and SCE1000 CLI Command Reference*

Starting the System and Observing Initial Conditions

After installing your Cisco SCE 2000 platform and connecting cables, complete the following steps to start the Cisco SCE 2000 platform:

Step 1 Make sure the power cables are connected to the Cisco SCE 2000 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 both power switches on.

Step 3 Listen for the fans; you should immediately hear them operating.

Step 4 During the boot process, observe the following LEDs:

- Both Power LEDs should be green.
- Bypass LED should be green while the Cisco SCE 2000 platform is on bypass and unlit when the bypass is turned off.
- The Status LED should be a constant orange while booting. After a successful boot, the Status LED is flashing green.

Note It takes a several minutes for the Cisco SCE 2000 platform to boot and for the status LED to change from orange to flashing orange or flashing green.

Step 5 Observe the initialization process. When the system boot is complete, the console screen displays a script and system banner similar to the following:

```
Cisco Internetwork Operating System Software
IOS (tm) 7300 Software (C7300-JS-M), Version 12.1(9), CISCO RELEASED VERSION
Copyright (c) 1986-2006 by Cisco Systems, Inc.
Compiled Tue 17-MAY-06 01:51 by biff
Image text-base:0x40008970, data-base:0x40BF8000
```

Step 6 When you start up the Cisco SCE 2000 platform for the first time, the system automatically enters the setup wizard, which prompts you for configuration information for initial system configuration. On the console terminal, after the system displays the system banner and hardware configuration, you will see the System Configuration Dialog prompt. (Refer to Connecting the Management Interfaces and Performing Initial System Configuration, page 5-1 for a complete description of the setup wizard.)

You have the option of proceeding with the setup wizard to configure the system, or exiting from setup and using configuration commands to configure global (system-wide) and interface-specific parameters. You do not have to configure the interfaces immediately.

Final Tests

The procedures for performing the final tests to verify that the Cisco SCE 2000 platform is functioning properly are explained in the following sections:

How to Verify Operational Status

After all the ports are connected, verify that the Cisco SCE 2000 platform is not in a Warning state.

Step 1 On the Cisco SCE 2000 Front panel, examine that the Status LED is flashing green.

Step 2 To display the operation status of the system, at the Cisco SCE 2000# 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.
```

Examples for Verifying Operational Status

The following example displays a sample output where the LEDs appear red/orange:

```
SCE 2000# show system operation-status

System Operation status is Operational
```

How to View the User Log Counters

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

Step 1 At the Cisco SCE 2000# prompt, type **show logger device User-File-Log counters** and press Enter.

Examples for Viewing the User Log Counters

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

```
SCE 2000# 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 Cisco SCE 2000 Configurations

The procedures for managing Cisco SCE 2000 platform configurations are explained in the following sections:

Viewing Configuration

When you enter configuration commands, it immediately effects 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 SCE platform loads the startup-config, which includes the non-default configuration as saved by the user, into the running-config.

The Cisco SCE platform provides commands for:

- Viewing the running configuration
- Viewing the startup configuration

After configuring the Cisco SCE platform, you may query for the running configuration using the command **show running-config**. This command displays the non-default running configuration. To view all Cisco SCE platform running configuration, whether it is the default or not, you may use the option **all-data** in the **show running-config** command.

Step 1 At the SCE 2000# prompt, type show running-config.

The system shows the running configuration.

```
SCE 2000# show running-config

#This is a general configuration file (running-config).
#Created on 15:50:56 CET MON December 11 2005
#cli-type 1
#version 1
clock timezone CET 1
snmp-server community "public" ro
snmp-server host 10.1.1.253 traps version 1 "public"
interface LineCard 0
connection-mode active
no silent
no shutdown
flow-aging default-timeout UDP 60
interface FastEthernet 0/0
ip address 10.1.5.109 255.255.0.0
interface FastEthernet 0/1
interface FastEthernet 0/2
exit
line vty 0 4
no timeout
exit

SCE 2000#
```

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 valid when the system restarts, you must save the changes before leaving the management session, that is, you must save 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: `tffs0:system/prevconf`. Refer to How to Recover a Previous Configuration, page 7-7 for an explanation on how to recover a previous configuration.

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

Step 1 At the Cisco SCE 2000# 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: tffs0:system.

Example for Saving or Changing the Configuration Settings

EXAMPLE 1

The following example shows the running configuration file.

```
SCE 2000# show running-config

#This is a general configuration file (running-config).
#Created on 15:50:56 CET MON February 11 2006
#cli-type 1
#version 1
clock timezone CET 1
snmp-server community "public" ro
snmp-server host 10.1.1.253 traps version 1 "public"
interface LineCard 0
connection-mode active
no silent
no shutdown
flow-aging default-timeout UDP 60
interface FastEthernet 0/0
ip address 10.1.5.109 255.255.0.0
interface FastEthernet 0/1
interface FastEthernet 0/2
exit
line vty 0 4
```

```
no timeout
exit
SCE 2000#

SCE 2000# copy running-config startup-config

Writing general configuration file to temporary location...
Backing-up general configuration file...
Copy temporary file to final location...
SCE 2000#
```

EXAMPLE 2

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

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

How to Recover a Previous Configuration

When you save a new configuration, the system automatically backs up the old configuration in the directory `tffs0: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.

DETAILED STEPS

Step 1 At the Cisco SCE 2000# prompt, type **more tffs0:system/prevconf/config.txt**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 tffs0:system/prevconf/config.tx1 tffs0:system/config.txt**.

The system sets the startup configuration to the configuration from config.tx1.

Example for Recovering a Previous Configuration

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

```
SCE 2000# more tffs0:system/prevconf/config.tx1

#This is a general configuration file (running-config).
#Created on 19:36:07 UTC THU February 14 2006
#cli-type 1
#version 1
interface LineCard 0
no silent
no shutdown
interface FastEthernet 0/0
ip address 10.1.5.109 255.255.0.0
interface FastEthernet 0/1
interface FastEthernet 0/2
exit
line vty 0 4
exit
SCE 2000# copy tffs0:system/prevconf/config.tx1 tffs0:system/config.txt
SCE 2000#
```

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.

Step 1 At the Cisco SCE 2000# prompt, type **show version and** press **Enter**.

Example for Displaying the Cisco SCE Platform Version Information

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

```
SCE 2000# show version

System version: Version 3.0.0 Build 240
Build time: Jan 11 2006, 07:34:47
Software version is: Version 2.5.2 Build 240
Hardware information is:
rx   : 0x0075
dp   : 0x1808
tx   : 0x1708
ff   : 0x0077
cls   : 0x1721
cpld   : 0x0025
Lic   : 0x0176
rev   : G001
Bootrom  : 2.1.0
L2 cache  : Samsung 0.5
lic type  : MFE
optic mode : MM
Product S/N : CAT093604K3
Product ID : SCE2020-4XGBE-MM
Version ID : V01
Deviation  :
Part number : 800-26601-01
Revision  : B0
Software revision : G001
LineCard S/N  : CAT09370L1Q
Power Supply type : AC
SML Application information is:
Application file: /tffs0/temp.sli
Application name:
Application help:
Original source file: H:\work\Emb\jrt\V2.5\sml\actions\drop\drop_basic_anyflow.san
Compilation date: Wed, November 12 2006 at 21:25:21
Compiler version: SANc v2.50 Build 32 gcc_codelets=true built on: Tue September 23 2006
09:51:57 AM.;SME plugin v1.1
Default capacity option used.
Logger status: Enabled
Platform: SCE 2000 - 4xGBE
Management agent interface version: SCE Agent 3.0.5 Build 18
Software package file: ftp://vk:vk@10.1.8.22/P:/EMB/LatestVersion/3.0.5/se1000.pkg
SCE 2000 uptime is 21 minutes, 37 seconds
SCE 2000#
```

How to Display the Cisco 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
- CLI **show inventory** command

The **show inventory** CLI command displays the following information:

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

Step 1 From the Cisco SCE 2000>prompt, type **show inventory and** press **Enter**.

Example for Displaying the SCE Platform Inventory

The following example shows how to display the inventory (UDI) of the SCE platform.

```
SCE 2000> show inventory

NAME: "Chassis",
DESCR: "Cisco SCE 2020 Service Control Engine, Multi Mode, 4-port GE"
PID: SCE2020-4XGBE-MM , VID: V01, SN: CAT093604K3
SCE 2000>
```

How to Display the System Uptime

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

Step 1 At the Cisco SCE 2000# prompt, type **show system-uptime** and press **Enter**.

Examples for Displaying the System Uptime

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

```
SCE 2000# show system-uptime

SCE 2000 uptime is 21 minutes, 37 seconds
SCE 2000#
```

Rebooting and Shutting Down the Cisco SCE Platform

Rebooting the Cisco SCE Platform

Rebooting the Cisco SCE platform is required after installing a new firmware, in order for that firmware 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, page 7-6.

Step 1 At the Cisco SCE 2000# prompt, type **reload** and press **Enter**.

A confirmation message appears.

Step 2 Type **y** to confirm the reboot request and press **Enter**.

Examples for Rebooting the Cisco SCE Platform

The following example shows the commands for system reboot.

```
SCE 2000# 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, page 7-6.

Step 1 Connect to the serial console port (The CON connector on the SCE platform front panel, 9600 baud).

The Cisco SCE 2000# prompt appears.

Step 2 Type **reload shutdown**.

A confirmation message appears.

Step 3 Type **y** to confirm the shutdown request and press **Enter**.

Examples for Shutting Down the Cisco SCE Platform

The following example shows the commands for system shutdown.

```
SCE 2000# 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 a user issues this command from a Telnet session, and then realizes he/she has no physical access to the Cisco SCE platform.