



# CHAPTER 7

## Basic SCE 1000 Platform Operations

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### Introduction

This chapter describes how to start up the SCE 1000 platform, reboot, and shutdown. It also describes how to manage configurations.

- [Starting the SCE 1000 Platform, page 7-1](#)
- [Managing SCE 1000 Configurations, page 7-4](#)
- [How to Display the SCE Platform Version Information, page 7-7](#)
- [How to Display the SCE Platform Inventory, page 7-8](#)
- [How to Display the System Uptime, page 7-9](#)
- [Rebooting and Shutting Down the SCE Platform, page 7-9](#)

### Starting the SCE 1000 Platform

The procedures for starting the SCE 1000 platform are explained in the following sections:

- [Checking Conditions Prior to System Startup, page 7-2](#)
- [Performing Complex Configurations, page 7-2](#)
- [Starting the System and Observing Initial Conditions, page 7-2](#)
- [Final Tests, page 7-3](#)

## Checking Conditions Prior to System Startup

Check the following conditions before you start your SCE 1000 platform:

- Both power supply units are installed and connected
- First-time startup at installation:
  - SCE 1000 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)
  - SCE 1000 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 SCE 1000 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 SCE 2000 and SCE 1000 Software Configuration Guide](#)
- [Cisco SCE 2000 and SCE 1000 CLI Command Reference](#)

## Starting the System and Observing Initial Conditions

After installing your SCE 1000 platform and connecting cables, complete the following steps to start the SCE 1000 platform:

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- Step 1** Make sure the power cables are connected to the SCE 1000 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 SCE 1000 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 SCE 1000 to boot and for the status LED to change from orange to flashing orange or flashing green.

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- 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 SCE 1000 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.

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.

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## What to Do Next

If the system does not complete each of the steps in the startup procedure, proceed to [Chapter 8, “Troubleshooting”](#) for troubleshooting recommendations and procedures.

## Final Tests

The procedures for performing the final tests to verify that the SCE 1000 is functioning properly are explained in the following sections:

- [How to Verify Operational Status, page 7-3](#)
- [How to View the User Log Counters, page 7-4](#)

## How to Verify Operational Status

After all the ports are connected, verify that the SCE 1000 is not in a Warning state.

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- Step 1** On the SCE 1000 Front panel, examine that the Status LED is flashing green.
- Step 2** To display the operation status of the system, at the SCE 1000# 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.
```

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## Examples for Verifying Operational Status

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

```
SCE 1000#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.

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- Step 1** At the SCE 1000# prompt, type `show logger device User-File-Log` counters and press Enter.
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### Examples for Viewing the User Log Counters

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

```
SCE 1000#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 SCE 1000 Configurations

The procedures for managing SCE 1000 configurations are explained in the following sections:

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

## Viewing Configuration

When you enter configuration commands, it immediately effects the SCE platform operation and configuration. This configuration, referred to as the running-config, is saved in the SCE platform volatile memory and is effective while the 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 SCE platform provides commands for:

- Viewing the running configuration
- Viewing the startup configuration

After configuring the 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 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 1000# prompt, type show running-config.

The system shows the running configuration.

```
SCE 1000#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 1000#
```

## 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 SCE platform provides multiple interfaces for the purpose of configuration and management. All interfaces supply an API to the same database of the 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 previous configuration.

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

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- Step 1** At the SCE 1000# 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`.
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## Examples for Saving or Changing the Configuration Settings

### Example 1

The following example shows the running configuration file.

```
SCE 1000#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 1000#
SCE 1000#copy running-config startup-config
Writing general configuration file to temporary location...
Backing-up general configuration file...
Copy temporary file to final location...
SCE 1000#
```

### Example 2

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

```
SCE 1000(config)#no ip name-serverSCE 1000(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.

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- Step 1** At the SCE 1000# 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`.
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### 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 1000#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 1000#copy tffs0:system/prevconf/config.tx1 tffs0:system/config.txt
SCE 1000#
```

## How to Display the SCE Platform Version Information

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

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- Step 1** At the SCE 1000# prompt, type `show version` and press Enter.
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## Example for Displaying the SCE Platform Version Information

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

```
SCE 1000#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 1000 - 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 1000 uptime is 21 minutes, 37 seconds
SCE 1000#
```

## 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 in the [Cisco SCE 2000 and SCE 1000 Software Configuration Guide](#))
- CLI show inventory command



The show inventory CLI command displays the following information:

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

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**Step 1** From the SCE 1000>prompt, type show inventory and press Enter.

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## Example for Displaying the SCE Platform Inventory

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

```
SCE 1000>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 1000>
```

## How to Display the System Uptime

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

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**Step 1** At the SCE 1000>prompt, type show system-uptime and press Enter.

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## Examples for Displaying the System Uptime

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

```
SCE 1000#show system-uptime SCE 1000 uptime is 21 minutes, 37 seconds  
SCE 1000#
```

## Rebooting and Shutting Down the SCE Platform

- [Rebooting the SCE Platform, page 7-10](#)
- [How to Shut Down the SCE Platform, page 7-10](#)

## Rebooting the SCE Platform

Rebooting the 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 SCE platform is necessary.

**Note**

When the 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 7-5](#).

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- Step 1** At the SCE 1000# prompt, type reload and press Enter.  
A confirmation message appears.
- Step 2** Type y to confirm the reboot request and press Enter.
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## Examples for Rebooting the SCE Platform

The following example shows the commands for system reboot.

```
SCE 1000# reload Are you sure? y the system is about to reboot, this will end your CLI session
```

## How to Shut Down the SCE Platform

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

**Note**

When the 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 7-5](#).

- 
- Step 1** Connect to the serial console port (The CON connector on the SCE platform front panel, 9600 baud).  
The SCE 1000# prompt appears.
- Step 2** Type reload shutdown.  
A confirmation message appears.
- Step 3** Type y to confirm the shutdown request and press Enter.
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## Examples for Shutting Down the SCE Platform

The following example shows the commands for system shutdown.

```
SCE 1000#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**

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Since the 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 SCE platform.

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