



CHAPTER 5

Connecting the Management Interfaces

Revised: May 8, 2012, OL-24139-02

Introduction

This chapter explains how to connect the SCE8000 GBE Service Control Module (SCE8000-SCM-E) to a local console and perform the initial system configuration.

Additionally, this chapter contains instructions for cabling the 10/100/1000 Ethernet management interfaces.

The Console interface (CON) as well as the management interfaces (Port1 and Port2) are located on the SCE8000-SCM-E located in slot 1 of the Cisco SCE8000 GBE chassis (see [Service Control Module \(SCE8000-SCM-E\)](#), page 2-3).

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How to Set Up the Local Console

Even if you are managing the Cisco SCE8000 GBE from a remote location, you must first connect the unit to a local console and configure the initial settings for the Cisco SCE8000 GBE to support remote management. When the initial connection is established, the setup utility runs automatically, prompting you to perform the initial system configuration.

This section provides instructions for setting up your local terminal at your workstation, to enable you to perform the initial system configuration of the Cisco SCE8000 GBE system using the setup utility.

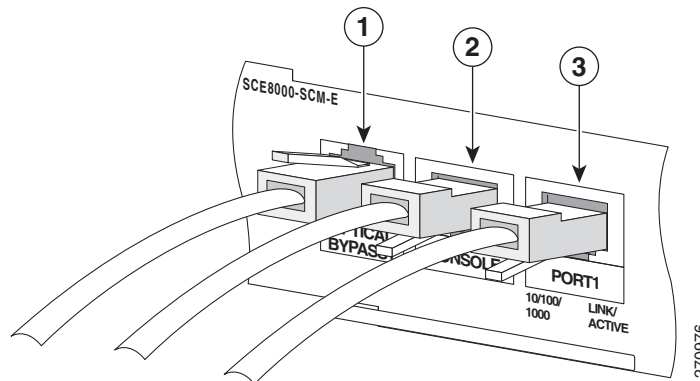
Make sure that the terminal configuration is as follows:

- 9600 baud
- 8 data bits
- No Parity
- 1 stop bits
- No flow control

The above Cisco SCE8000 GBE port parameters are fixed and are not configurable.

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- Step 1** Plug the RS-232 serial cable provided with the Cisco SCE8000 GBE into the CON port on the front panel of the SCE8000-SCM-E in slot 1. (See item no. 2 in [Figure 5-1](#) below.)

Figure 5-1 Connecting the Local Console to the SCE8000-SCM-E CON Port



Make sure that you push on the RJ-45 connector (attached to the RS-232 serial cable) until you hear a *click*, which indicates that the connector is fully inserted and secured in the receptacle. Gently pull on the plug to confirm whether the plug is locked into the socket.

- Step 2** Connect the other end of the serial cable (with an attached DB-9 or DB-25 connector) to the VT100 compatible local (serial) terminal.
- Step 3** Make sure the local terminal is configured as a VT-100 terminal, according to the fixed Cisco SCE8000 GBE CON port parameters.
- Step 4** Make sure that the Cisco SCE8000 GBE is powered-on, and has been allowed to complete booting (this process may take several minutes).
- Step 5** Press **Enter** several times until the Cisco logo appears on the local terminal.
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Initial Setup Parameters

At this point there are several basic global parameters that must be correctly configured for the SCE platform to communicate properly with the outside world. The following is a very brief summary of the initial setup parameters and commands. For more information, see the [Cisco SCE8000 Software Configuration Guide](#).

- IP address and subnet mask of the Cisco SCE8000 GBE platform itself. This is the IP address used by the GBE management interface.
- IP address of the default gateway.
- Hostname—The hostname is used to identify the SCE platform. It appears as part of the CLI prompt and is also returned as the value of the MIB-II object sysName.
 - The maximum length is 20 characters.
 - The default hostname is *SCE8000 GBE*.
- Passwords for user, admin, and root level access. These are authorization-level passwords, not individual passwords. These passwords may be encrypted.

Passwords must meet the following criteria:

- Minimum length—4 characters
 - Maximum length—100 characters
 - Begin with an alpha character
 - May contain only printable characters
- Default password for all levels is *cisco*.
 - System clock—Current date and time. The clock and the calendar must always be synchronized.
 - Time zone—The name or ID of the time zone along with the number of hours offset from UTC.
 - Domain name server—Default domain name, which is used to complete unqualified host names, as well as up to three domain name servers, which are used for DNS lookup.

You must also enable DNS lookup.

- RDR formatter destination—The SCE platform generates Raw Data Records (RDRs) and sends them to the specified destinations (external collection systems) via the RDR formatter. You can configure up to eight RDR formatter destinations. Specify the IP address and port number for each destination.

Table 5-1 lists commands both for displaying the currently configured values and for configuring these parameters. It also lists the command mode for each configuration command. All **show** commands are executed from the User Exec command mode.

Table 5-1 Initial Setup Configuration

| Parameter | show command | configuration command | configuration command mode |
|---------------------------------------|--|---|--|
| Management IP address and subnet mask | show interface GigabitEthernet (1/1 1/2) ip address OR show interface MNG (0/1 0/2) ip address | ip address <i>x.x.x.x subnet-mask</i> | GigabitEthernet Interface Configuration OR MNG Interface Configuration |
| Default gateway | show ip default-gateway | ip default-gateway <i>x.x.x.x</i> | Global Configuration |
| Hostname | show hostname | hostname <i>host-name</i> | Global Configuration |
| Authorization level passwords | N/A | enable password level <i>level</i> <i>[encryption-type] password</i> | Global Configuration |
| Clock | show clock show calendar | calendar set <i>hh:mm:ss day month year</i> clock read-calendar OR clock set <i>hh:mm:ss day month year</i> clock update-calendar | Privileged EXEC |
| Time zone | show timezone | clock timezone <i>zone-name</i> <i>offset-hours</i> | Global Configuration |
| Domain name server | show hosts | ip domain-lookup ip domain-name <i>domain-name</i> ip name-server <i>server-address1</i> <i>[server-address2] [server-address3]</i> | Global Configuration |
| RDR formatter destination | show rdr-formatter destination | rdr-formatter destination <i>ip-address port port-number</i> | Global Configuration |

Connecting the Management Interfaces

The SCE8000-SCM-E is equipped with two active RJ-45 management ports. These 10/100/1000 Ethernet interfaces provide access from a remote management console to the Cisco SCE8000 via a LAN. The two management ports provide the possibility for a redundant management interface, thus ensuring management access to the SCE platform even if there is a failure in one of the management links.

If only one management port is used, the desired port is simply connected directly to the LAN. If both management ports are used, they must both be connected to the management console via a switch. In this way, the IP address of the MNG port is always the same, regardless of which physical port is currently active.

The procedures for cabling the management port and testing connectivity between the Cisco SCE8000 and the remote management host are explained in the following sections:

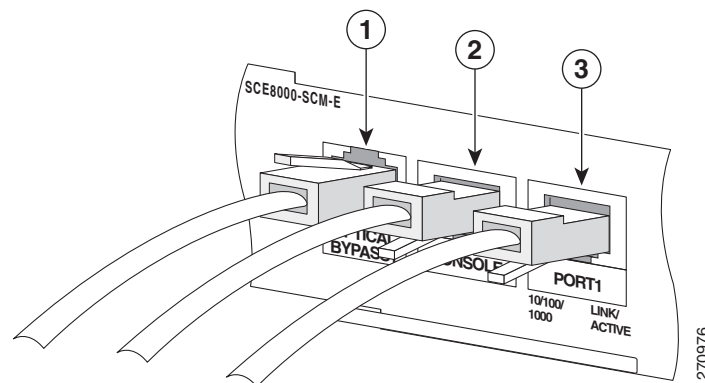
- [Cabling the Management Port, page 5-5](#)
- [Verifying Management Interface Connectivity, page 5-6](#)

Cabling the Management Port

The SCE8000-SCM-E has two 10/100/1000 Ethernet ports that are used as the management ports, located in slot 1 of the Cisco SCE8000 GBE chassis, and labeled Port1 and Port2.

- Step 1** Plug the Ethernet cable provided (with attached RJ-45 connector) into desired 10/100/1000 Ethernet port on the front panel of the SCE8000-SCM-E in slot 1. (See item 3 in [Figure 5-2](#) below.)

Figure 5-2 Cabling the Management Port



- Step 2** Connect the other end of the Ethernet cable into your management network.
- If only one management port is used — connect the port directly to the LAN.
 - If both management ports are used — connect both ports to the LAN via a switch.

Make sure that you push on the RJ-45 connector attached to the cable until you hear a click, which indicates that the connector is fully inserted and secured in the receptacle. Gently pull on the plug to confirm whether the plug is locked into the socket.

If the Link LED on the port does not light, try removing the cable and reinserting it firmly into the module socket. To disconnect the plug from the socket, press down on the raised portion on top of the plug, releasing the latch. You should hear an audible click indicating the latch has released. Carefully pull the plug out of the socket.

If the Link LED still does not light, verify that the cable is connected correctly to the appropriate network element on its second end.

Verifying Management Interface Connectivity

If the Cisco SCE8000 GBE platform has been powered up, test now to verify that connectivity has been established between the Cisco SCE8000 GBE and the remote management host. If the Cisco SCE8000 GBE platform is not powered up, perform this step after starting the Cisco SCE8000 GBE platform.

Step 1 After you connect the cable to the appropriate management port and to your network, check the relevant port LEDs.

There are two GBE LEDs—Link/Active, and 10/100/1000 (see [Service Control Module \(SCE8000-SCM-E\)](#), page 2-3).

At this point, check that the Link/Active LED is green.

The state of the 10/100/1000 LED depends on the Ethernet network settings, as follows:

- Off: 10 Mbps
- Green: 100 Mbps
- Orange: 1000 Mbps

Step 2 Test connectivity. From the host that you intend to use for remote management, ping to the Cisco SCE8000 GBE by entering **ping** and the Cisco SCE8000 GBE IP address, and pressing **Enter** (see the example, below).



Note

Note that only [Step 2](#) is performed from the remote management host (connected by LAN to Port1 or Port2).

This verifies that an active connection exists between the specified station and the management port.

The **ping** command sends an echo request packet to an IP address and then awaits a reply. Ping output can help you evaluate path-to-host reliability, delays over the path, and whether the host can be reached or is functioning.

EXAMPLE:

The following example displays a typical ping response where the target IP address is 10.10.10.20:

```
C:\>ping 10.10.10.20
pinging 10.10.10.20 ...
PING 10.10.10.20: 56 data bytes
64 bytes from host (10.10.10.20): icmp_seq=0. time=0. ms
64 bytes from host (10.10.10.20): icmp_seq=1. time=0. ms
64 bytes from host (10.10.10.20): icmp_seq=2. time=0. ms
64 bytes from host (10.10.10.20): icmp_seq=3. time=0. ms
----10.10.10.20 PING Statistics----
4 packets transmitted, 4 packets received, 0% packet loss
round-trip (ms) min/avg/max = 0/0/0
```

