

Configuring the Supervisor Engine Software

This chapter describes how to configure the supervisor engine software, including IP address and subnet mask assignment, default gateway configuration, and passwords.

Note For complete information on installing Catalyst 5000 series supervisor engine modules, refer to the *Catalyst 5000 Series Supervisor Engine Installation Guide*. For complete information on installing the Catalyst 4000 series Supervisor Engine I, refer to the *Catalyst 4003 Installation Guide*.

Note Although the fixed-configuration switches do not have a modular supervisor engine module, the supervisor engine configuration tasks presented in this chapter apply to these switches as well as to the modular switch platforms.

Note For information about using redundant supervisor engines in the Catalyst 5000 series switches, see Chapter 16, “Using Redundant Supervisor Engines.”

Note For complete syntax and usage information for the commands used in this chapter, refer to the *Command Reference* for your switch.

This chapter consists of these sections:

- Understanding the Switch Management Interfaces on page 3-2
- Default Supervisor Engine Configuration on page 3-2
- Configuring the Supervisor Engine on page 3-3

Note The Catalyst 5000 series Supervisor Engines I and II have two Fast Ethernet uplink ports. The Supervisor Engine III FSX and FLX models have fixed-configuration Gigabit Ethernet uplinks. Supervisor Engine III support a variety of uplink modules with Fast Ethernet or Gigabit Ethernet uplink ports. For information on configuring Fast Ethernet switching, refer to Chapter 4, “Configuring Ethernet and Fast Ethernet Switching.” For information on configuring Gigabit Ethernet switching, refer to Chapter 5, “Configuring Gigabit Ethernet Switching.”

Understanding the Switch Management Interfaces

The Catalyst 5000, 2926G, and 2926 series switches have two configurable IP management interfaces, the in-band (sc0) interface and the SLIP (sl0) interface. The Catalyst 4000 and 2948G series switches have an additional interface, the management Ethernet (me1) interface.

The in-band (sc0) management interface is connected to the switching fabric and therefore participates in all of the functions of a normal switch port, such as spanning tree, Cisco Discovery Protocol (CDP), virtual LAN (VLAN) membership, and so forth. The out-of-band management interfaces (sl0 and me1) are not connected to the switching fabric and do not participate in any of these functions.

When you configure the IP address, subnet mask, and broadcast address (and, on the sc0 interface, VLAN membership) of the sc0 or me1 interface, you can access the switch through Telnet or SNMP. When you configure the SLIP (sl0) interface, you can open a point-to-point connection to the switch through the console port from a workstation.

Because sc0 and me1 are two distinct interfaces, they potentially can have duplicate IP addresses or overlapping subnets. Therefore, when you enter a command that causes sc0 and me1 to have the same IP address or occupy the same subnet, the switch software brings one of the interfaces down.

In most cases, the switch software brings down the sc0 interface after you confirm the change. However, when the switch boots with the IP address 0.0.0.0 configured on both the sc0 and me1 interfaces, the me1 interface is brought down to allow BOOTP and RARP requests to broadcast out the sc0 interface.

Note When the switch boots with the IP address 0.0.0.0 configured on both the sc0 and me1 interfaces, the me1 interface is automatically brought down by the switch software. You are not asked to confirm the change, and no console messages or traps are generated in this case.

Duplicate IP addresses and equal subnets are allowed on the sc0 and me1 interfaces provided that one of the interfaces is configured down. Non-equal subnets are not allowed (for example, sc0 with IP address 10.1.1.1 and subnet mask 255.0.0.0 and me1 with IP address 10.1.1.2 and subnet mask 255.255.255.0).

Default Supervisor Engine Configuration

Table 3-1 shows the default supervisor engine configuration. For information on the default configuration for supervisor engine Fast Ethernet uplinks, refer to Chapter 4, “Configuring Ethernet and Fast Ethernet Switching.” For information on the default configuration for supervisor engine Gigabit Ethernet uplinks, refer to Chapter 5, “Configuring Gigabit Ethernet Switching.”

Table 3-1 Supervisor Engine Default Configuration

Feature	Default Value
Administrative connection	Normal mode
Global system information	<ul style="list-style-type: none"> • No value for system name • No value for system contact • No value for location
System clock	No value for system clock time
Passwords	No passwords configured for normal mode or enable mode (press the Return key)

Table 3-1 Supervisor Engine Default Configuration (continued)

Feature	Default Value
System prompt	Console>
Management Ethernet (me1) interface (Catalyst 4000 and 2948G series switches only)	IP address, subnet mask, and broadcast address set to 0.0.0.0
In-band (sc0) interface	<ul style="list-style-type: none"> IP address, subnet mask, and broadcast address set to 0.0.0.0 Assigned to VLAN¹ 1
Default gateway address	Set to 0.0.0.0 with a metric of 0
SLIP ² (sl0) interface	<ul style="list-style-type: none"> IP address and SLIP destination address set to 0.0.0.0 SLIP for the console port is not active (set to detach)

1 VLAN=virtual LAN

2 SLIP=Serial Line Internet Protocol

Configuring the Supervisor Engine

These sections describe how to configure the supervisor engine software:

- Preparing to Configure the Switch on page 3-3
- Establishing a Console Port Connection on page 3-4
- Setting the In-Band (sc0) Interface IP Address on page 3-7
- Setting the Management Ethernet (me1) Interface IP Address on page 3-8
- Configuring Default Gateways on page 3-9
- Configuring Static Routes on page 3-10
- Configuring the SLIP (sl0) Interface on the Console Port on page 3-11
- Using BOOTP or RARP to Obtain an IP Address on page 3-12
- Setting Passwords on page 3-13

Note For additional supervisor engine configuration tasks, refer to Chapter 14, “Administering the Switch.”

Preparing to Configure the Switch

You can configure the switch using the **set**, **show**, and **clear** commands. Enter **set** commands to change switch parameters. Enter **show** commands to verify the configuration. Use **clear** commands (or, in some cases, **set** commands) to overwrite or erase configuration parameters.

Before you configure the supervisor engine software, obtain the following information:

- IP address for the switch (sc0 and me1 interfaces only)
- Subnet mask (sc0 and me1 interfaces only)
- (Optional) Broadcast address (sc0 and me1 interfaces only)
- VLAN membership (sc0 interface only)
- SLIP and SLIP destination addresses (sl0 interface only)

- Interface connection type
 - In-band (sc0) interface: Configure this interface when assigning an IP address, subnet mask, and VLAN to the in-band management interface on the switch.
 - Out-of-band management Ethernet (me1) interface (Catalyst 4000 and 2948G series switches only): Configure this interface when assigning an IP address and subnet mask to the out-of-band management Ethernet interface on the switch.
 - SLIP (sl0) interface: Configure this interface when setting up a point-to-point SLIP connection between a terminal and the switch.

Establishing a Console Port Connection

Note For information on connecting a terminal to the supervisor engine console port, refer to the hardware documentation for your switch.

Make sure the terminal is connected to the switch and that the switch and terminal are on. To establish a console port connection to the switch, perform this task:

Task	Command
Step 1 Access the switch command-line interface (CLI) using the appropriate commands or application on the terminal (for example, using the tip command on a UNIX system).	
Step 2 At the Enter password: prompt, press Return .	
Step 3 Enter privileged mode.	enable
Step 4 At the Enter password: prompt, press Return .	

This example shows the bootup display of a Catalyst 5000 series switch with a Supervisor Engine II. The display on your switch will be different depending on the switch model and supervisor engine version.

```
ATE0
ATS0=1

Catalyst 5000 Power Up Diagnostics

Init NVRAM Log
LED Test
ROM CHKSUM
DUAL PORT RAM r/w
RAM r/w
RAM address test
Byte/Word Enable test
RAM r/w 55aa
RAM r/w aa55
EARL test

BOOTROM Version 2.1, Dated Apr  6 1998 16:49:40
BOOT date: 00/00/00 BOOT time: 03:18:57
SIMM RAM address test
SIMM Ram r/w 55aa
SIMM Ram r/w aa55
Start to Uncompress Image ...
```

```

IP address for Catalyst not configured
BOOTP will commence after the ports are online
Ports are coming online ...
Cisco Systems Console

Enter password:
Mon Apr 06 1998 03:20:41 Module 1 is online

Enter Password:
Mon Apr 06 1998 03:20:41 Module 2 is online

Enter Password:

Sending RARP request with address 00:40:0b:6c:2b:ff
Sending bootp request with address: 00:40:0b:6c:2b:ff
Sending RARP request with address 00:40:0b:6c:2b:ff
Sending bootp request with address: 00:40:0b:6c:2b:ff
Sending RARP request with address 00:40:0b:6c:2b:ff
Sending bootp request with address: 00:40:0b:6c:2b:ff
Sending RARP request with address 00:40:0b:6c:2b:ff
Sending bootp request with address: 00:40:0b:6c:2b:ff
Sending RARP request with address 00:40:0b:6c:2b:ff
Sending bootp request with address: 00:40:0b:6c:2b:ff
Sending RARP request with address 00:40:0b:6c:2b:ff
Sending bootp request with address: 00:40:0b:6c:2b:ff
Sending RARP request with address 00:40:0b:6c:2b:ff
Sending bootp request with address: 00:40:0b:6c:2b:ff
Sending RARP request with address 00:40:0b:6c:2b:ff
Sending bootp request with address: 00:40:0b:6c:2b:ff
Sending RARP request with address 00:40:0b:6c:2b:ff
Sending bootp request with address: 00:40:0b:6c:2b:ff
Sending RARP request with address 00:40:0b:6c:2b:ff
Sending bootp request with address: 00:40:0b:6c:2b:ff

Console> enable
Enter password:
Console> (enable)

```

Note The system only initiates BOOTP and Reverse Address Resolution Protocol (RARP) requests at startup when the sc0 interface IP address is set to 0.0.0.0.

This example shows the bootup display of a Catalyst 5000 series switch with a Supervisor Engine III. The Supervisor Engine III FSX and FLX bootup display is similar; the display on your switch will be different depending on the switch model and supervisor engine version.

```

System Power On Diagnostics
NVRAM Size.....128KB
LED Test.....Done
ID Prom Test.....Passed
DPRAM Size.....16KB
DPRAM Data 0x55 Test.....Passed
DPRAM Data 0xaa Test.....Passed
DPRAM Address Test.....Passed
Clearing DPRAM.....Done
System DRAM Memory Size.....16MB
DRAM Data 0x55 Test.....Passed
DRAM Data 0xaa Test.....Passed
DRAM Address Test.....Passed
Clearing DRAM.....Done

```

```
EARL++.....Present
EARL RAM Test.....Passed
EARL Serial Prom Test.....Passed
Level2 Cache.....Present
Level2 Cache test.....Passed
```

This example shows the bootup display of a Catalyst 4000 series switch with a Supervisor Engine I. The display on your switch will be different depending on the switch model and software version.

```
Galaxy PROM Cache Kernel initializing...
PROM CK built 1998.11.10 16:50:09 by lwr
In MDInitialize()
V++ CacheKernel version 0.1.3-experimental booting
Calling InstallExceptionHandler
Calling TimerInit
Calling InitTlb
Calling InitMemoryInfo
Enabling and testing interrupts...
Testing the UART interrupt.
UART interrupt test passed.
Timer interrupt test passed.
Total System Memory: 32 MB

V++ CacheKernel 0.1.3-experimental Monitor
CacheKernel% boot
Segment 0: 0x0008a3d4 bytes loading to ck vaddr 0x80a00000 (user vaddr 0x100000)
ExecK: new thread is 0x808c41c8
ExecK: installing new thread 0x808c41c8 into processor 0x808938b0
CacheKernel: scheduler error, active thread is not most runnable.
0:01.147057: Internal Notice: Monlib mapped at 0x1f000000
0:01.147935: Internal Notice: Working memory mapped at 0x1f100000
0:01.148612: Internal Notice: Tmpfs mapped at 0x1f600000
0:01.149558: Internal Notice: Archive memory mapped at 0x30000000 (PA = 0x1c00)
0:01.152275: Internal Notice: WS-X4012 bootrom version 4.4(0.14) built on 1998.3
0:01.332649: Internal Notice: Booting WS-X4012.
Supervisor MAC address from SPROM: 00:10:7b:f8:03:00
0:01.337655: Please set IPAddr variable
0:01.338138: Please set Netmask variable
0:01.338578: Please set Broadcast variable
0:01.339058: No gateway has been specified
0:01.339707: Network is not configured
WS-X4012 bootrom version 4.4(0.14), built on 1998.11.10 16:41:53
H/W Revisions: Meteor: 4 Comet: 8 Board: 2
Supervisor MAC addresses: 00:10:7b:f8:03:00 through 00:10:7b:f8:06:ff (1024 add)
Installed memory: 32 MB
Testing LEDs.... done!
Autobooting image: "bootflash:cat4000.4-4-1.bin"
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
#####
Starting Off-line Diagnostics
Mapping in TempFs
Board type is WS-X4012
DiagBootMode value is "post"
Loading diagnostics...

Power-on-self-test for Module 1: WS-X4012
Status: (. = Pass, F = Fail)
processor: .          cpu sdram: .          temperature sensor: .
enet console port: . nvram: .          switch sram: .
switch registers: .  switch port 0: .        switch port 1: .
switch port 2: .    switch port 3: .        switch port 4: .
switch port 5: .    switch port 6: .        switch port 7: .
switch port 8: .    switch port 9: .        switch port 10: .
switch port 11: .   switch bandwidth: .
Module 1 Passed
```

```

Power-on-self-test for Module 2:  WS-X4306
Port status: (. = Pass, F = Fail, ? = no GBIC)
 1: .  2: .  3: ?  4: ?  5: ?  6: ?
Module 2 Passed

Power-on-self-test for Module 3:  WS-X4148
Port status: (. = Pass, F = Fail)
 1: .  2: .  3: .  4: .  5: .  6: .  7: .  8: .
 9: . 10: . 11: . 12: . 13: . 14: . 15: . 16: .
17: . 18: . 19: . 20: . 21: . 22: . 23: . 24: .
25: . 26: . 27: . 28: . 29: . 30: . 31: . 32: .
33: . 34: . 35: . 36: . 37: . 38: . 39: . 40: .
41: . 42: . 43: . 44: . 45: . 46: . 47: . 48: .
Module 3 Passed

Exiting Off-line Diagnostics

Cisco Systems, Inc. Console

Enter password:

```

Setting the In-Band (sc0) Interface IP Address

Before you can Telnet to the switch or use Simple Network Management Protocol (SNMP) to manage the switch, you must assign an IP address to either the in-band (sc0) logical interface or the management Ethernet (me1) interface. For information on obtaining an IP address from a BOOTP or RARP server, see the “Using BOOTP or RARP to Obtain an IP Address” section on page 3-12. For information on configuring the me1 interface, see the “Setting the Management Ethernet (me1) Interface IP Address” section on page 3-8.

Note For more information about the in-band (sc0) management interface, see “Understanding the Switch Management Interfaces” section on page 3-2.

To set the IP address and VLAN membership of the in-band (sc0) management interface, perform this task in privileged mode:

Task	Command
Step 1 Assign an IP address, subnet mask, and (optional) broadcast address to the in-band (sc0) interface.	set interface sc0 [<i>ip_addr</i>] [<i>netmask</i>] [<i>broadcast</i>]
Step 2 Assign the in-band interface to the proper VLAN (make sure the VLAN is associated with the network to which the IP address belongs).	set interface sc0 [<i>vlan</i>]
Step 3 If necessary, bring the interface up.	set interface sc0 up
Step 4 Verify the interface configuration.	show interface

This example shows how to assign an IP address, subnet mask, and VLAN to the in-band (sc0) interface and how to verify the interface configuration:

```
Console> (enable) set interface sc0 10.1.1.100 255.0.0.0
Interface sc0 IP address and netmask set.
Console> (enable) set interface sc0 10
Interface sc0 vlan set.
Console> (enable) show interface
sl0: flags=51<UP, POINTOPOINT, RUNNING>
      slip 0.0.0.0 dest 128.96.3.240
sc0: flags=63<UP, BROADCAST, RUNNING>
     vlan 10 inet 10.1.1.100 netmask 255.0.0.0 broadcast 10.255.255.255
Console> (enable)
```

Setting the Management Ethernet (me1) Interface IP Address

Before you can Telnet to the switch or use SNMP to manage the switch, you must assign an IP address to either the in-band (sc0) logical interface or the management Ethernet (me1) interface. The me1 interface is only present on the Catalyst 4000 and 2948G series switches. For information on configuring the sc0 interface, see the “Setting the In-Band (sc0) Interface IP Address” section on page 3-7.

Note For more information about the management Ethernet (me1) interface, see “Understanding the Switch Management Interfaces” section on page 3-2.

To set the management Ethernet (me1) interface IP address, perform this task in privileged mode:

Task	Command
Step 1 Assign an IP address and subnet mask to the management Ethernet (me1) interface.	set interface me1 [ip_addr [netmask]]
Step 2 If necessary, bring the interface up.	set interface me1 up
Step 3 Verify the interface configuration.	show interface

This example shows how to assign an IP address and subnet mask to the management Ethernet (me1) interface and how to verify the interface configuration:

```
Console> (enable) set interface me1 172.20.52.12 255.255.255.224
Interface me1 IP address and netmask set.
Console> (enable) show interface
sl0: flags=51<UP, POINTOPOINT, RUNNING>
      slip 0.0.0.0 dest 0.0.0.0
sc0: flags=63<UP, BROADCAST, RUNNING>
     vlan 1 inet 0.0.0.0 netmask 0.0.0.0 broadcast 0.0.0.0
me1: flags=63<UP, BROADCAST, RUNNING>
     inet 172.20.52.12 netmask 255.255.255.224 broadcast 172.20.52.31
Console> (enable)
```

Configuring Default Gateways

The supervisor engine sends IP packets with unresolved destination IP addresses to the default gateway (typically a router).

On the Catalyst 5000, 2926G, and 2926 series switches, you can define up to three default IP gateways in software release 4.1 and later. Use the **primary** keyword to give a default IP gateway higher priority than other default gateways. If no primary default gateway is specified, the first gateway configured is the primary gateway. If more than one gateway is designated as primary, the last primary gateway configured is the primary default gateway.

Defining multiple default gateways provides redundancy; if the primary default gateway fails, the switch uses the secondary default gateways in the order in which they were configured.

On the Catalyst 4000 and 2948G series switches, when you specify a default gateway when both the in-band (sc0) and management Ethernet (me1) interfaces are configured, the switch software automatically determines through which interface the default gateway can be reached. You can configure multiple default gateways on the Catalyst 4000 and 2948G series switches in software release 4.5 and later.

To specify one or more default gateways, perform this task in privileged mode:

Task	Command
Step 1 Configure a default IP gateway address for the switch.	set ip route default <i>gateway</i> [<i>metric</i>] [primary]
Step 2 (Optional) Configure additional default gateways for the switch.	set ip route default <i>gateway</i> [<i>metric</i>] [primary]
Step 3 Verify that the default gateways appear correctly in the IP routing table.	show ip route

This example shows how to configure three default gateways on the switch and how to verify the default gateway configuration:

```

Console> (enable) set ip route default 10.1.1.1 primary
Route added.
Console> (enable) set ip route default 10.1.1.10
Route added.
Console> (enable) set ip route default 10.1.1.20
Route added.
Console> (enable) show ip route
Fragmentation  Redirect  Unreachable
-----
enabled        enabled   enabled
The primary gateway: 10.1.1.1
Destination      Gateway      Flags  Use      Interface
-----
default          10.1.1.20   G      0        sc0
default          10.1.1.10   G      0        sc0
default          10.1.1.1    UG     12       sc0
10.0.0.0         10.1.1.100  U      0        sc0
default          default     UH     0        sl0
Console> (enable)

```

This example shows how to configure two default gateways on a Catalyst 4000 or 2948G series switch, with one default gateway reachable through the sc0 interface and one reachable through the me1 interface:

```

Console> (enable) show interface
sl0: flags=51<UP, POINTOPOINT, RUNNING>
    slip 0.0.0.0 dest 0.0.0.0
sc0: flags=63<UP, BROADCAST, RUNNING>
    vlan 5 inet 172.20.52.124 netmask 255.255.255.248 broadcast 172.20.52.127
me1: flags=63<UP, BROADCAST, RUNNING>
    inet 10.1.1.100 netmask 255.0.0.0 broadcast 10.255.255.255
Console> (enable) set ip route default 172.20.52.121
Route added.
Console> (enable) set ip route default 10.1.1.1
Route added.
Console> (enable) show ip route
Fragmentation  Redirect  Unreachable
-----
enabled        enabled   enabled

The primary gateway: 172.20.52.121
Destination      Gateway          Flags  Use      Interface
-----
default          10.1.1.1        G      0      me1
default          172.20.52.121  UG     0      sc0
172.20.52.120   172.20.52.124  U      72     sc0
default          default         UH     0      sl0
Console> (enable)

```

Configuring Static Routes

If your Telnet station or SNMP network management workstation is on a different network from the switch and there is no router available, you might need to add a static routing table entry for the network where your end station is located.

To configure a static route, perform this task in privileged mode:

Task	Command
Step 1 Configure a static route to the remote network.	set ip route <i>destination gateway [metric]</i>
Step 2 Verify that the static route appears correctly in the IP routing table.	show ip route

This example shows how to configure a static route on the switch and how to verify that the route is configured properly in the routing table:

```

Console> (enable) set ip route 172.16.0.0 10.1.1.20
Route added.
Console> (enable) show ip route
Fragmentation  Redirect  Unreachable
-----
enabled        enabled   enabled

The primary gateway: 10.1.1.1
Destination      Gateway          Flags  Use      Interface
-----
172.16.0.0       10.1.1.20       UG     0      sc0
default          10.1.1.1        UG    18     sc0
10.0.0.0         10.1.1.100      U      0      sc0
default          default         UH     0      sl0
Console> (enable)

```

Configuring the SLIP (s10) Interface on the Console Port

Use the SLIP (s10) interface for point-to-point SLIP connections between the switch and an IP host.



Caution You *must* use the console port for the SLIP connection. When the SLIP connection is enabled and SLIP is attached on the console port, an EIA/TIA-232 terminal cannot connect via the console port. If you are connected to the switch CLI through the console port and you enter the **slip attach** command, you will lose the console port connection. Use Telnet to access the switch, enter privileged mode, and enter the **slip detach** command to restore the console port connection.

Note For more information about the SLIP (s10) management interface, see “Understanding the Switch Management Interfaces” section on page 3-2.

To enable and attach SLIP on the console port, perform this task:

Task	Command
Step 1 Access the switch from a remote host with Telnet.	telnet { <i>host_name</i> <i>ip_addr</i> }
Step 2 Enter privileged mode on the switch.	enable
Step 3 Set the console port SLIP address and the destination address of the attached host.	set interface s10 <i>slip_addr</i> <i>dest_addr</i>
Step 4 Enable SLIP for the console port.	slip attach
Step 5 Verify the SLIP interface configuration.	show interface

This example shows how to configure SLIP on the console port and verify the configuration:

```
sparc20% telnet 172.20.52.71
Trying 172.20.52.71 ...
Connected to 172.20.52.71.
Escape character is '^]'.

Cisco Systems Console

Enter password:
Console> enable
Enter password:
Console> (enable) set interface s10 10.1.1.1 10.1.1.2
Interface s10 slip and destination address set.
Console> (enable) slip attach
Console Port now running SLIP.
Console> (enable) show interface
s10: flags=51<UP, POINTOPOINT, RUNNING>
      slip 10.1.1.1 dest 10.1.1.2
sc0: flags=63<UP, BROADCAST, RUNNING>
      vlan 523 inet 172.20.52.71 netmask 255.255.255.224 broadcast 172.20.52.95
Console> (enable)
```

Using BOOTP or RARP to Obtain an IP Address

You can set the IP address information for the in-band (sc0) interface using the Bootstrap Protocol (BOOTP) or Reverse Address Resolution Protocol (RARP). When you map the switch Media Access Control (MAC) address to an IP address on the BOOTP or RARP server, when the switch boots up it retrieves its IP address from the server automatically.

The switch makes BOOTP and RARP requests only if the sc0 interface IP address is set to 0.0.0.0 when the switch boots up. This address is the default for a new switch or a switch whose configuration file has been cleared using the **clear config all** command. BOOTP and RARP requests are only broadcast out the sc0 interface.

The me1 interface does not participate in BOOTP or RARP. If both the sc0 and me1 interfaces are unconfigured (IP address 0.0.0.0), the me1 interface is brought down to allow the switch to broadcast BOOTP or RARP requests on the sc0 interface. If the me1 interface is configured and the sc0 interface is not, BOOTP and RARP requests are not sent. Similarly, if the sc0 interface is not configured but the interface is configured down, BOOTP and RARP requests are not sent.

To use BOOTP or RARP to obtain an IP address for the switch, perform this task:

Task	Command
Step 1 Make sure you have BOOTP or RARP server code installed correctly on the workstation.	
Step 2 Obtain the first address in the MAC address range for module 1 (the supervisor engine). Choose the last address in the range on the first line under the MAC-Address(es) heading.	show module
Step 3 Add an entry in the BOOTP or RARP configuration file for each switch. Press Return after each entry to create a blank line between each entry.	
Step 4 Set the sc0 interface IP address to 0.0.0.0.	set interface sc0 0.0.0.0
Step 5 Reset the switch. The switch broadcasts BOOTP and RARP requests only when the switch boots up.	reset system
Step 6 When the switch reboots, confirm that the sc0 interface IP address is set correctly.	show interface

Setting Passwords

Note The configuration task in this section describes how to configure passwords for local authentication. For more detailed information about configuring local authentication and TACACS+ authentication on the switch, see Chapter 15, “Controlling Access to the Switch Using Authentication.”

To set the user mode and privileged mode passwords, perform this task in privileged mode:

Task	Command
Step 1 Set the password for normal mode. Enter your old password (press Return on a switch with no password configured), enter your new password, and reenter your new password.	set password
Step 2 Set the password for privileged mode. Enter your old password, enter your new password, and reenter your new password.	set enablepass

This example shows how to set the passwords on the switch:

```
Console> (enable) set password
Enter old password:
Enter new password:
Retype new password:
Password changed.
Console> (enable) set enablepass
Enter old password:
Enter new password:
Retype new password:
Password changed.
Console> (enable)
```

