Installing SGM on Solaris

This chapter describes how to install the SGM server and client software on a Sun Solaris system. It also provides information about verifying the installation and uninstalling and reinstalling SGM on Solaris.

This chapter includes the following sections:

Overview of Installing SGM

You can install both the SGM server software and SGM client software on a Solaris system using the following installation menu options:

- Install SGM Server and Client—Use when you want the SGM server and client software to reside on the same Solaris system.
- Install SGM Server Only—Use when you want to install only the SGM server software on this system.
- Install SGM Client Only—Use when you want to install only the SGM client software on this system, or if you must install the SGM client software separately from the server software.

The SGM software consists of the following Solaris packages:

- SGM server (CSCOsgm-s)
- SGM client (CSCOsgm-c)

When you install both the SGM server and client software on the same system, both of the listed packages must be installed successfully. When you install only the SGM server or client, only the respective package (CSCOsgm-s or CSCOsgm-c) must be installed successfully.

When the SGM installation program prompts you for a response, it displays the default value for each prompt in square brackets [ ]. To accept the default value, press **Return**. (When in doubt, accept the default.)

SGM also verifies the availability of all values, such as port numbers, before accepting them.

To stop the SGM installation program at any time, press **Ctrl-C**.

If you attempt to install SGM in one window while installing another product (such as HP OpenView) in another window, the SGM installation fails. If this situation occurs, wait until all other product installations are complete, then enter the following command from the top of the SGM CD Image:

```
./uninstall.sh -n
```

This command removes all SGM components and restores your system to a clean state. Then reinstall SGM.

Prerequisites for Installing SGM

Before you run the SGM installation program:

- Make sure your Solaris system meets the requirements listed in the "Solaris System Requirements" section on page 1-3.
- Determine whether you want SGM to receive SNMP traps:
  - If you want SGM to receive traps natively, determine whether SGM is to receive traps on the standard UDP port number 162 or on another port. For example, if your ITPs have been configured to send traps to a different port, or if trap multiplexing devices and NMS applications in your network have been configured to send traps to a different port, you need to specify that port number when prompted by the SGM installation program.
  - If you want SGM to receive traps using HP OpenView, determine the location of the HP OpenView home directory. The default location is */opt/OV*.

- Determine whether you want to configure SGM Security Services, and whether you want local-based or Solaris-based authentication. For more information, see the "Configuring SGM User-Based Access" section in the *Cisco Signaling Gateway Manager User Guide*.
- Determine whether CiscoWorks is installed on your system, whether you want to integrate SGM with CiscoWorks, and the name and port number for the CiscoWorks Web server. The default port number is 1741.
- Determine whether you want the SGM server to automatically discover your network the first time the server starts after installation. If so, determine the name or IP address of the node you want to use as a seed node. For more information about the Discovery process and how to use seed nodes, see the "Discovering the Network" section of the *Cisco Signaling Gateway Manager User Guide*.

Upgrading SGM

If you are upgrading SGM to a new version and release (for example, from SGM 4.0 to SGM 4.1), keep the following considerations in mind:

- SGM converts the following configuration information, as necessary, to be compatible with the new version and release of SGM:
  - SGM database—SGM converts all network object configuration information in the SGM database.
  - User views—SGM converts each user's view settings.
  - Network event information, including the event log and customized event help files, but not including event filter settings
  - Customized point code formats and network configurations
  - SNMP parameters
  - GTT configuration files
  - Route table configuration files
  - Address table configuration files
  - Seed node files
  - Notes about objects, events, and so on
  - IP access list
  - Trap access list
- SGM replaces the following configuration information with the latest configuration:
  - Network event configuration. SGM also preserves the old event configuration file as *SgmEvent.conf.sgm40*.

    If you customized the *SgmEvent.conf* file in SGM 4.0, the *SgmEvent.conf* file in SGM 4.1 does not include those customizations. If you want to retain those customizations, replace the new *SgmEvent.conf* with the old *SgmEvent.conf.sgm40*. If you do so, SGM uses default values for any new fields or capabilities in the file.

- SGM does not maintain the following configuration when you upgrade to a new version and release of SGM:
  - User preferences
  - Network event filter settings
- If you are upgrading from SGM 2.2, you must first upgrade to SGM 3.0, then to SGM 3.1, then to SGM 3.2, then to SGM 3.3, then to SGM 4.0, then to SGM 4.1.
  - To upgrade from SGM 2.2 to SGM 3.0, refer to the *Cisco Signaling Gateway Manager Installation Guide* for SGM 3.0.
  - To upgrade from SGM 3.0 to SGM 3.1, refer to the *Cisco Signaling Gateway Manager Installation Guide* for SGM 3.1.
  - To upgrade from SGM 3.1 to SGM 3.2, refer to the *Cisco Signaling Gateway Manager Installation Guide* for SGM 3.2.
  - To upgrade from SGM 3.2 to SGM 3.3, refer to the *Cisco Signaling Gateway Manager Installation Guide* for SGM 3.3.
  - To upgrade from SGM 3.3 to SGM 4.0, refer to the *Cisco Signaling Gateway Manager Installation Guide* for SGM 4.0.

Becoming the Root User

To install and configure SGM, you must be logged in as the root user on the system where you want to install SGM.

Caution As the root user, you can adversely affect your operating environment if you are unaware of the effects of the commands you use. If you are a relatively inexperienced UNIX user, limit your activities as the root user to the tasks described in this manual.

If you are not logged in, log in as the root user:

```
> login: root
> Password: root-password
```

If you are already logged in, but not as the root user, use the **su** command to change your login to root:

```
# su
# Password: root-password
```

Installing the SGM Server and Client (Recommended)

This procedure assumes that you have not already installed the SGM server or client on this workstation. If you have already installed the SGM server or client on this workstation, some steps might be added, some might be different, and some might be unnecessary and ignored by SGM.

To install the SGM server and client at the same time, complete the following steps:

Step 1 Log in as the root user, as described in the "Becoming the Root User" section on page 2-4.

Step 2 Mount the CD-ROM drive, as described in Appendix A, "Mounting and Unmounting the CD-ROM Drive on Solaris/Linux."

Step 3 Change to the mounted directory using the **cd** command:

```
# cd /cdrom/SGM41/solaris
```

or

```
# cd /cdrom/cdrom0/solaris
```

Step 4 Start the installation script by entering the following command:

```
# ./setup.sh
```

Note If you are installing SGM using an NFS-exported CD-ROM drive, image checking might take several hours to complete. To avoid this problem, enter **./setup.sh -i**, which disables image checking.

Step 5 The SGM installation program displays the installation menu:

```
1) Review README File First (Recommended)
2) Install SGM Server and Client
3) Install SGM Server Only
4) Install SGM Client Only
5) Install SGM Call Data Mediation Server (Linux Only)
6) Exit Setup

Please choose an option ->
```

Choose one of the following installation options:

- To read the latest information about SGM in the README file, type **1** and press **Return**. The README file contains late-breaking information about SGM that might not be found in the other product documentation.
- To install both the SGM server and client software on the system, type **2**, press **Return**.

Note SGM uses separate server and client installation scripts. If you choose to install both the server and client, the server script runs first, followed immediately by the client script.

Step 6 The SGM Server Install Tool starts. A system requirements check is performed to ensure all required patches are installed, and memory requirements are met.

The SGM installation program then displays the following messages and prompt:

```
=======================================================
=================- SGM Server Summary -=================
=======================================================

INFO: The following parameters will be used:

INFO:   [1] Server Name     : your_sgm_server
INFO:   [2] Web Server      : 1774/tcp
INFO:   [3] JSP Server      : 1775/tcp
INFO:   [4] Naming Server   : 44742/tcp
INFO:   [5] Browser Path    : /opt/netscape/netscape

Press Return to continue ->
```

where *your_sgm_server* is the name of the SGM Server.

Press **Return**.

Step 7 The SGM installation program attempts to determine whether there is adequate space in the default installation directory, */opt*, to install the SGM server.

- If there is adequate space, installation continues.
- If there is not adequate space, the SGM installation program asks you to specify a different directory. See the "Installing SGM to a Different Directory" section on page 2-24 for more information. After you specify a different directory, installation continues.

The SGM installation program also checks the following directories to determine whether there is adequate space: */var/sadm*, */var/tmp*, and */tmp*. If there is not adequate space on any of these directories, the following message appears:

```
There is insufficient space in <directory> for installation to proceed.
```

The installation process stops and exits.

Step 8 If you are not upgrading to a new version and release of the SGM server, continue with Step 9.

If you are upgrading to a new version and release of the SGM server, the SGM installation program displays the following prompt:

```
Do you want to upgrade to SGM - Server version 4.1? (y/n)? [Y]
```

Press **Return**.

The SGM installation program begins installing the SGM server, then displays the following prompt:

```
Press Return to continue ->
```

Press **Return**. SGM converts your version or 4.0 server data to version 4.1. Skip to Step 20.

Step 9 If your system does not meet the requirements for Express Install, installation continues with Step 10.

If your system does meet the requirements, the SGM installation program displays the following prompt:

```
Do you want the Express Install (y/n)? [Y]
```

The Express Install option uses default settings, minimizing system prompts.

- To choose the Express Install, press **Return**, and skip to Step 15.
- To choose the standard installation, which prompts you for additional information, type **n**, press **Return**, and continue with Step 10.

Step 10 The SGM installation program displays the following prompt:

```
Where should the product be installed? [/opt]
```

To accept the default value, press **Return**; or type a different location and press **Return**.

Step 11 The SGM installation program displays the following prompt:

```
Which tcp port should Web Server use? [1774]
```

To accept the default value (recommended), press **Return**; or type a different, numeric port number and press **Return**.

(SGM works on standard Web port 80, but software installed in the future that requires port 80 might conflict with SGM.)

Do not enter a non-numeric port number. If you do, you are prompted to enter a numeric port number.

Step 12 The SGM installation program displays the following prompt:

```
Which tcp port should JSP Server use? [1775]
```

To accept the default value, press **Return**; or type a different, numeric port number and press **Return**.

Do not enter a non-numeric port number. If you do, you are prompted to enter a numeric port number.

Step 13 The SGM installation program displays the following prompt:

```
Which tcp port should Naming Server use? [44742]
```

To accept the default value, press **Return**; or type a different, numeric port number and press **Return**.

Do not enter a non-numeric port number. If you do, you are prompted to enter a numeric port number.

Step 14 The SGM installation program displays the following messages and prompt:

```
=========================================================
=================- SGM Server Summary -==================
=========================================================

INFO: The following parameters will be used:

INFO:    [1] Server Name     : your_sgm_server
INFO:    [2] Web Server      : your_web_server_port/tcp
INFO:    [3] JSP Server      : your_JSP_server_port/tcp
INFO:    [4] Naming Server   : your_naming_server_port/tcp
INFO:    [5] Browser Path    : your_browser_path
```

If necessary, you can change these settings after installing SGM by using the following commands:

- To change the Server Name, use the **sgm servername** command. The SGM client name changes to match the new server name.
- To change the Browser Path, use the **sgm browserpath** command. Note that the browser is not launched when a script is being used.
- To change the Web Server TCP port number, use the **sgm webport** command.
- To change the JSP Server TCP port number, use the **sgm jspport** command.
- To verify the new settings, use the **sgm props** command.

The SGM installation program then displays the following prompt:

```
Press Return to continue ->
```

Press **Return**.

Step 15 If CiscoWorks is not installed on your system, installation continues with Step 16.

If CiscoWorks is installed on your system, the SGM installation program automatically integrates the SGM server with CiscoWorks and displays the following messages:

```
Registering SGM Server with CiscoWorks Application Registry...
Integrating SGM Server with CiscoWorks Common Management Foundation...
CiscoWorks must be restarted to register SGM menus:

    /etc/init.d/dmgtd stop
    /etc/init.d/dmgtd start

Integration of SGM Server with CiscoWorks Complete.
```

Note This step does not start the CiscoWorks server automatically. If the CiscoWorks server was not running when you began installing SGM, you must start it manually.

Step 16 The SGM installation program displays the following prompt:

```
Would you like to configure SGM to receive SNMP traps? [y]
```

- If you do not want to configure SGM to receive SNMP traps, type **n** and press **Return**.
- If you want to configure SGM to receive SNMP traps, press **Return**. The SGM installation program displays the following message and prompt:

  ```
  SGM can receive traps natively on a UDP port or receive traps via integration with HP
  OpenView.

  Enter SNMP trap integration type: native or hpov? [native]
  ```

  – If you want SGM to receive traps natively, press **Return**. The SGM installation program attempts to determine the best configuration for the server, then displays the following messages and prompt:

  ```
  SGM can receive traps natively on the standard UDP port number 162 or on any other
  UDP port chosen. If another application is already bound to the SNMP standard trap
  reception port of 162, an alternate port number for SGM must be specified.

  UDP port number 44750 is the default alternate port.

  Enter trap port number? [162]
  ```

  By default, ITPs send traps to port 162. To accept the default value, press **Return**.

  If your ITPs have been configured to send traps to a different port, type that port number and press **Return**.

  By default, SGM listens for traps from trap multiplexing devices and NMS applications on port 44750. If you want SGM to monitor that port, and port 162 is not available on the SGM server device, type **44750** and press **Return**.

  If trap multiplexing devices and NMS applications in your network have been configured to send traps to a different port, type that port number and press **Return**.

  Do not enter a non-numeric port number. If you do, you are prompted to enter a numeric port number.

  When you select an SNMP trap port number for the SGM server, make sure your ITPs use the same SNMP trap port number. See the description of the **snmp-server host** command in the "ITP Requirements" section on page 1-11 for more information.

  – If you want SGM to receive traps using HP OpenView, type **hpov** and press **Return**. The SGM installation program displays the following prompt:

  ```
  Please enter location of HP OpenView home directory: [/opt/OV]
  ```

  To accept the default value, press **Return**; or type a different location and press **Return**.

Step 17 The SGM installation program displays the following prompt:

```
Would you like to configure SGM Security Services? [n]
```

- If you do not want to configure SGM Security Services, press **Return**.
- If you want to configure SGM Security Services, type **y** and press **Return**. The SGM installation program displays the following messages and prompt:

```
SGM provides two types of security authentication, Solaris and Local.

Local-based authentication allows creation of user accounts and passwords local to the
SGM system. When using this method, user names, passwords, and access levels are
managed using SGM commands.

Solaris-based authentication uses the standard Solaris-based user accounts and
passwords as specified in the /etc/nsswitch.conf file. Using this method,
authentication can be provided by the local /etc/passwd file or from a distributed NIS
system. When using this method, access levels are assigned to user accounts using SGM
commands, but all user names and passwords are managed using Solaris commands.

The valid choices for authentication type are "solaris" and "local".

Please choose the type of authentication to use: [local]
```

  – If you want SGM to use local-based authentication, press **Return**. The SGM installation program displays the following message:

```
Authentication type set to: local.
```

  – If you want SGM to use Solaris-based authentication, type **solaris** and press **Return**. The SGM installation program displays the following message:

```
Authentication type set to: solaris.
```

  The SGM installation program then displays the following messages:

```
User-Based Access Protection Is Enabled.
Use the "sgm adduser" command to add users.
Log in with user names and passwords for access to SGM features.
```

Step 18 The SGM installation program displays the following prompt:

```
Would you like SGM to discover your ITP network after startup? [n]
```

- If you want the SGM server to automatically discover your network the first time the server starts after installation, type **y** and press **Return**.

  The SGM installation program displays the following prompt:

```
Enter name of ITP to use to seed discovery:
```

  Type the name or IP address of a seed node and press **Return**.

  Note SGM does not verify that the node name you enter is a valid node name.

  For more information about the Discovery process and how to use seed nodes, see the "Discovering the Network" section of the *Cisco Signaling Gateway Manager User Guide*.

- If you do not want the SGM server to automatically discover your network the first time the server starts after installation, press **Return**.

Step 19 If the TFTPD server on this system is enabled, installation continues with Step 20.

If the TFTPD server on this system is not enabled, the SGM installation program displays the following messages and prompt:

```
The TFTPD server on this system is not enabled.

If you plan to use this system as a TFTPD server to send configuration files to ITP
devices, enable the TFTPD server and ensure that it is working properly.

Check the etc/inetd.conf file for an entry similar to:

   tftp dgram upd6 wait root /usr/sbin/in.tftpd in.tftpd -s /tftp boot

and make sure the line is not commented out.

Press Return to continue ->
```

Check the specified line in the *etc/inetd.conf* file, then press **Return**.

Step 20 Server installation completes, and the SGM installation program displays the following message:

```
To access the SGM Web Server use the URL:
http://your_sgm_server:your_web_server_port
```

where:

- *your_sgm_server* is the name of the SGM Web Server
- *your_web_server_port* is the TCP port number used by the Web Server

This URL is required if you want to install the SGM client software using the Web interface on the SGM server. See the "Installing the SGM Client for Solaris Using the Web Server" section on page 2-25 for more information.

Tip You can also use the Web interface on the SGM server to access server logs, system information, and SGM documentation.

The SGM installation program then displays the following messages and prompt:

```
No Errors were encountered during installation.
Please review /var/tmp/cisco_sgmsvr_install.log for detailed results.
Would you like to view the log? [n]
```

- If you do not want to view the log, press **Return**.
- If you want to view the log, type **y** and press **Return**. The server installation log is displayed, followed by the prompt:

  ```
  Press Return to continue ->
  ```

  Press **Return**.

Step 21 Client installation begins. A system requirements check is performed to ensure all required patches are installed, and memory requirements are met.

The SGM installation program uses the TCP/IP and UDP ports and the browser executable path specified in Step 6, then attempts to determine whether there is adequate space in the default installation directory, */opt*, to install the SGM client.

- If there is adequate space, installation continues.
- If there is not adequate space, the SGM installation program asks you to specify a different directory. See the "Installing SGM to a Different Directory" section on page 2-24 for more information. After you specify a different directory, installation continues.

The SGM installation program also checks the following directories to determine whether there is adequate space: */var/sadm*, */var/tmp*, and */tmp*. If there is not adequate space on any of these directories, the following message appears:

```
There is insufficient space in <directory> for installation to proceed.
```

The installation process stops and exits.

Step 22 If you are not upgrading to a new version and release of the SGM client, continue with Step 23.

If you are upgrading to a new version and release of the SGM client, the SGM installation program displays the following prompt:

```
Do you want to upgrade to SGM - Client version 4.1? (y/n)? [Y]
```

Press **Return**.

The SGM installation program begins installing the SGM client, then displays the following prompt:

```
Press Return to continue ->
```

Press **Return**, and skip to Step 25.

Step 23 If your system does not meet the requirements for Express Install, installation continues with Step 24.

If your system does meet the requirements, the SGM installation program displays the following prompt:

```
Do you want the Express Install (y/n)? [Y]
```

The Express Install option uses default settings, minimizing system prompts.

- To choose the Express Install, press **Return**, and skip to Step 25.
- To choose the standard installation, which prompts you for additional information, type **n,** press **Return**, and continue with Step 24.

Step 24 The SGM installation program displays the following prompt:

```
Where should the product be installed? [/opt]
```

To accept the default value, press **Return**; or type a different location and press **Return**.

Step 25 The SGM installation program displays the following prompt:

```
Integrate SGM client with a CiscoWorks Server? [n]
```

- If you do not want to integrate the SGM client with a CiscoWorks server, press **Return**. The SGM installation program displays the following message and prompt:

  ```
  Integration with a CiscoWorks Server was not chosen.
  Press Return to continue ->
  ```

  Press **Return**.

- If you want to integrate the SGM client with a CiscoWorks server, type **y** and press **Return**. The SGM installation program displays the following prompt:

  ```
  Enter server name for CiscoWorks Server. [your_cw_server]
  ```

  where *your_cw_server* is the host name of the CiscoWorks server. The CiscoWorks server can be the same as the SGM server, or it can be a different server.

  To accept the default value, press **Return**; or type a different server name and press **Return**.

  The SGM installation program displays the following prompt:

  ```
  Enter port number for CiscoWorks Web Server on cw_server. [1741]
  ```

  where *cw_server* is the name of the CiscoWorks server. To accept the default port number, press **Return**; or type a different, numeric port number and press **Return**.

  Do not enter a non-numeric port number. If you do, you are prompted to enter a numeric port number.

  The SGM installation program displays the following message and prompt:

  ```
  Integration with CiscoWorks server {cw_server} complete.
  Press Return to continue ->
  ```

  Press **Return**.

Step 26 If you are not upgrading to a new version and release of the SGM client, continue with Step 27.

If you are upgrading to a new version and release of the SGM client, the SGM installation program displays the following prompt:

```
INFO: Restoring old SGM Client Data Files...
Press Return to continue ->
```

Press **Return**, and continue with Step 27.

Step 27 The SGM installation program displays the following message and prompt:

```
No Errors were encountered during installation.
Please review /var/tmp/cisco_sgmcli_install.log for detailed results.
Would you like to view the log? [n]
```

- If you do not want to view the log, installation is complete. Press **Return**.
- If you want to view the log, type **y** and press **Return**. The client installation log is displayed, followed by the prompt:

  ```
  Press Return to continue ->
  ```

  Press **Return**.

Step 28 To verify that the installation was successful, see the procedures in the "Verifying SGM Installation" section on page 2-27.

Step 29 The SGM installation program displays the following SGM start menu:

```
1) Start SGM Server and Client
2) Start SGM Server Only
3) Exit Setup

Please choose an option ->
```

To start SGM at this time, type one of the options and press **Return**. To start SGM at a later time, see the "Starting SGM" section on page 2-28.

Note Launching the client on Solaris requires the variable DISPLAY to be set to your display in your unix shell environment. If you used telnet to get to the server, you will not have access to your display and will not have the DISPLAY variable set automatically for you.

Installing the SGM Server Only

This procedure assumes that you have not already installed the SGM server or client on this workstation. If you have already installed the SGM server or client on this workstation, some steps might be added, some might be different, and some might be unnecessary and ignored by SGM.

To install the SGM server only, complete the following steps:

Step 1 Log in as the root user, as described in the "Becoming the Root User" section on page 2-4.

Step 2 Mount the CD-ROM drive, as described in Appendix A, "Mounting and Unmounting the CD-ROM Drive on Solaris/Linux."

Step 3 Change to the mounted directory using the **cd** command:

```
# cd /cdrom/SGM41/solaris
```

or

```
# cd /cdrom/cdrom0/solaris
```

Step 4 Start the installation script by entering the following command:

```
# ./setup.sh
```

Note If you are installing SGM using an NFS-exported CD-ROM drive, image checking might take several hours to complete. To avoid this problem, enter **./setup.sh -i**, which disables image checking.

Step 5 The SGM installation program displays the installation menu:

```
1) Review README File First (Recommended)
2) Install SGM Server and Client
3) Install SGM Server Only
4) Install SGM Client Only
5) Install SGM Call Data Mediation Server (Linux Only)
6) Exit Setup

Please choose an option ->
```

Choose one of the following installation options:

- To read the latest information about SGM in the README file, type **1** and press **Return**. The README file contains late-breaking information about SGM that might not be found in the other product documentation.
- To install only the SGM server on the system, type **3** and press **Return**.

Step 6 The SGM server install tool begins. SGM performs a system requirements check. If the required patches are not installed, a warning appears:

```
WARNING: Some of the required OS patches are not installed
WARNING: on this system.

Do you want to continue to install the SGM - Server ? (y/n)? [N]
```

If you receive this warning, it is not recommended to continue the installation. Press **Return** to accept the default and discontinue the installation. Update your system with the required patches.

Step 7 SGM performs TCP/IP address and port usage checks. The SGM server summary appears:

```
============================================================
=================- SGM Server Summary -=====================
============================================================

INFO: The following parameters will be used:

INFO:    [1] Server Name      : your_sgm_server
INFO:    [2] Web Server       : 1774/tcp
INFO:    [3] JSP Server       : 1775/tcp
INFO:    [4] Naming Server    : 44742/tcp
INFO:    [5] Browser Path     : /opt/netscape/netscape

Press Return to continue ->
```

where *your_sgm_server* is the name of the SGM Server.

Press **Return**.

Step 8 The SGM installation program attempts to determine whether there is adequate space in the default installation directory, */opt*, to install the SGM server.

- If there is adequate space, installation continues.
- If there is not adequate space, the SGM installation program asks you to specify a different directory. See the "Installing SGM to a Different Directory" section on page 2-24 for more information. After you specify a different directory, installation continues.

The SGM installation program also checks the following directories to determine whether there is adequate space: */var/sadm*, */var/tmp*, and */tmp*. If there is not adequate space on any of these directories, the following message appears:

```
There is insufficient space in <directory> for installation to proceed.
```

The installation process stops and exits.

Step 9 If you are not upgrading to a new version and release of the SGM server, continue with Step 10.

If you are upgrading to a new version and release of the SGM server, the SGM installation program displays the following prompt:

```
Do you want to upgrade to SGM - Server version 4.1? (y/n)? [Y]
```

Press **Return**.

The SGM installation program begins installing the SGM server, then displays the following prompt:

```
Press Return to continue ->
```

Press **Return**. SGM converts your version 4.0 server data to version 4.1. Skip to Step 21.

Step 10 If your system does not meet the requirements for Express Install, installation continues with Step 11.

If your system does meet the requirements, the SGM installation program displays the following prompt:

```
Do you want the Express Install (y/n)? [Y]
```

The Express Install option uses default settings, minimizing system prompts.

- To choose the Express Install, press **Return**, and skip to Step 17.
- To choose the standard installation, which prompts you for additional information, type **n**, press **Return**, and continue with Step 11.

Step 11 The SGM installation program displays the following prompt:

```
Where should the product be installed? [/opt]
```

To accept the default value, press **Return**; or type a different location and press **Return**.

Step 12 The SGM installation program displays the following prompt:

```
Which tcp port should Web Server use? [1774]
```

To accept the default value (recommended), press **Return**; or type a different, numeric port number and press **Return**.

(SGM works on standard Web port 80, but software installed in the future that requires port 80 might conflict with SGM.)

Do not enter a non-numeric port number. If you do, you are prompted to enter a numeric port number.

Step 13 The SGM installation program displays the following prompt:

```
Which tcp port should JSP Server use? [1775]
```

To accept the default value, press **Return**; or type a different, numeric port number and press **Return**.

Do not enter a non-numeric port number. If you do, you are prompted to enter a numeric port number.

Step 14 The SGM installation program displays the following prompt:

```
Which tcp port should Naming Server use? [44742]
```

To accept the default value, press **Return**; or type a different, numeric port number and press **Return**.

Do not enter a non-numeric port number. If you do, you are prompted to enter a numeric port number.

Step 15 The SGM installation program displays the following messages and prompt:

```
============================================================
-----------------  SGM Server Summary -------------------
============================================================

INFO: The following parameters will be used:

INFO:    [1] Server Name     : your_sgm_server
INFO:    [2] Web Server      : your_web_server_port/tcp
INFO:    [3] JSP Server      : your_JSP_server_port/tcp
INFO:    [4] Naming Server   : your_naming_server_port/tcp
INFO:    [5] Browser Path    : your_browser_path
```

If necessary, you can change these settings after installing SGM by using the following commands:

- To change the Server Name, use the **sgm servername** command. The SGM client name changes to match the new server name.
- To change the Browser Path, use the **sgm browserpath** command.
- To change the Web Server TCP port number, use the **sgm webport** command.
- To change the JSP Server TCP port number, use the **sgm jspport** command.
- To verify the new settings, use the **sgm props** command.

The SGM installation program then displays the following prompt:

```
Press Return to continue ->
```

Press **Return**.

Step 16 If CiscoWorks is not installed on your system, installation continues with Step 17.

If CiscoWorks is installed on your system, the SGM installation program automatically integrates the SGM server with CiscoWorks and displays the following messages:

```
Registering SGM Server with CiscoWorks Application Registry...
Integrating SGM Server with CiscoWorks Common Management Foundation...
CiscoWorks must be restarted to register SGM menus:

    /etc/init.d/dmgtd stop
    /etc/init.d/dmgtd start

Integration of SGM Server with CiscoWorks Complete.
```

Note This step does not start the CiscoWorks server automatically. If the CiscoWorks server was not running when you began installing SGM, you must start it manually.

Step 17 The SGM installation program displays the following prompt:

```
Would you like to configure SGM to receive SNMP traps? [y]
```

- If you do not want to configure SGM to receive SNMP traps, type **n** and press **Return**.
- If you want to configure SGM to receive SNMP traps, press **Return**. The SGM installation program displays the following message and prompt:

  ```
  SGM can receive traps natively on a UDP port or receive traps via integration with HP
  OpenView.

  Enter SNMP trap integration type: native or hpov? [native]
  ```

  – If you want SGM to receive traps natively, press **Return**. The SGM installation program attempts to determine the best configuration for the server, then displays the following messages and prompt:

    ```
    SGM can receive traps natively on the standard UDP port number 162 or on any other
    UDP port chosen. If another application is already bound to the SNMP standard trap
    reception port of 162, an alternate port number for SGM to receive traps must be
    specified.

    UDP port number 44750 is the default alternate port.

    Enter trap port number? [162]
    ```

    By default, ITPs send traps to port 162. To accept the default value, press **Return**.

If your ITPs have been configured to send traps to a different port, type that port number and press **Return**.

By default, SGM listens for traps from trap multiplexing devices and NMS applications on port 44750. If you want SGM to monitor that port, and port 162 is not available on the SGM server device, type **44750** and press **Return**.

If trap multiplexing devices and NMS applications in your network have been configured to send traps to a different port, type that port number and press **Return**.

Do not enter a non-numeric port number. If you do, you are prompted to enter a numeric port number.

When you select an SNMP trap port number for the SGM server, make sure your ITPs use the same SNMP trap port number. See the description of the **snmp-server host** command in the "ITP Requirements" section on page 1-11 for more information.

– If you want SGM to receive traps using HP OpenView, type **hpov** and press **Return**. The SGM installation program displays the following prompt:

```
Please enter location of HP OpenView home directory: [/opt/OV]
```

To accept the default value, press **Return**; or type a different location and press **Return**.

Step 18 The SGM installation program displays the following prompt:

```
Would you like to configure SGM Security Services? [n]
```

- If you do not want to configure SGM Security Services, press **Return**.
- If you want to configure SGM Security Services, type **y** and press **Return**. The SGM installation program displays the following messages and prompt:

```
SGM provides two types of security authentication, Solaris and Local.

Local-based authentication allows creation of user accounts and passwords local to the
SGM system. When using this method, user names, passwords, and access levels are
managed using SGM commands.

Solaris-based authentication uses the standard Solaris-based user accounts and
passwords as specified in the /etc/nsswitch.conf file. Using this method,
authentication can be provided by the local /etc/passwd file or from a distributed NIS
system. When using this method, access levels are assigned to user accounts using SGM
commands, but all user names and passwords are managed using Solaris commands.

The valid choices for authentication type are "solaris" and "local".

Please choose the type of authentication to use: [local]
```

– If you want SGM to use local-based authentication, press **Return**. The SGM installation program displays the following message:

```
Authentication type set to: local.
```

– If you want SGM to use Solaris-based authentication, type **solaris** and press **Return**. The SGM installation program displays the following message:

```
Authentication type set to: solaris.
```

The SGM installation program then displays the following messages:

```
User-Based Access Protection Is Enabled.
Use the "sgm adduser" command to add users.
Log in with user names and passwords for access to SGM features.
```

Step 19 The SGM installation program displays the following prompt:

```
Would you like SGM to discover your ITP network after startup? [n]
```

- If you want the SGM server to automatically discover your network the first time the server starts after installation, type **y** and press **Return**.

  The SGM installation program displays the following prompt:

  ```
  Enter name of ITP to use to seed discovery:
  ```

  Type the name or IP address of a seed node and press **Return**.

  Note SGM does not verify that the node name you enter is a valid node name.

  For more information about the Discovery process and how to use seed nodes, see the "Discovering the Network" section of the *Cisco Signaling Gateway Manager User Guide*.

- If you do not want the SGM server to automatically discover your network the first time the server starts after installation, press **Return**.

Step 20 If the TFTPD server on this system is enabled, installation continues with Step 21.

If the TFTPD server on this system is not enabled, the SGM installation program displays the following messages and prompt:

```
The TFTPD server on this system is not enabled.

If you plan to use this system as a TFTPD server to send configuration files to ITP
devices, enable the TFTPD server and ensure that it is working properly.

Check the etc/inetd.conf file for an entry similar to:

   tftp dgram upd6 wait root /usr/sbin/in.tftpd in.tftpd -s /tftp boot

and make sure the line is not commented out.

Press Return to continue ->
```

Check the specified line in the *etc/inetd.conf* file, then press **Return**.

Step 21 Server installation completes, and the SGM installation program displays the following message:

```
To use this product, set your path to:

/opt/CSCOsgm/bin:$PATH

To access the SGM Web Server use the URL:
http://your_sgm_server:your_web_server_port

in your web browser.

Check the documentation for supported browsers and versions.
```

where:

- *your_sgm_server* is the name of the SGM Web Server
- *your_web_server_port* is the TCP port number used by the Web Server

This URL is required if you want to install the SGM client software using the Web interface on the SGM server. See the "Installing the SGM Client for Solaris Using the Web Server" section on page 2-25 for more information.

Tip You can also use the Web interface on the SGM server to access server logs, system information, and SGM documentation.

The SGM installation program then displays the following messages and prompt:

```
No Errors were encountered during installation.
Please review /var/tmp/cisco_sgmsvr_install.log for detailed results.
Would you like to view the log? [n]
```

- If you do not want to view the log, installation is complete. Press **Return**.
- If you want to view the log, type **y** and press **Return**. The server installation log is displayed, followed by the prompt:

  ```
  Press Return to continue ->
  ```

  Press **Return**.

Step 22 To verify that the installation was successful, see the procedures in the "Verifying SGM Installation" section on page 2-27.

Step 23 The SGM installation program displays the following SGM start menu:

```
1) Start SGM Server Only
2) Exit Setup

Please choose an option ->
```

To start SGM at this time, type one of the options and press **Return**. To start SGM at a later time, see the "Starting SGM" section on page 2-28.

Installing the SGM Client Only

This procedure assumes that you have not already installed the SGM server or client on this workstation. If you have already installed the SGM server or client on this workstation, some steps might be added, some might be different, and some might be unnecessary and ignored by SGM.

During installation, the SGM installation program prompts you for the full path to the Netscape Communicator or Mozilla executable file. Verify the location of the file before installing the SGM client. You can run SGM without Netscape or Mozilla, but Netscape or Mozilla is required to access the online help, to install the SGM client using the Web Server, to access the SGM server home page, and to launch CiscoView and CiscoWorks. You can also change the path at any time after installation using the **sgm browserpath** command. For more information, see the "SGM Command Reference" appendix in the *Cisco Signaling Gateway Manager User Guide*.

To install the SGM client only, complete the following steps:

Step 1 Log in as the root user, as described in the "Becoming the Root User" section on page 2-4.

Step 2 Mount the CD-ROM drive, as described in Appendix A, "Mounting and Unmounting the CD-ROM Drive on Solaris/Linux."

Step 3 Change to the mounted directory using the **cd** command:

```
# cd /cdrom/SGM41/solaris
```

or

```
# cd /cdrom/cdrom0/solaris
```

Step 4 Start the installation script by entering the following command:

```
# ./setup.sh
```

Note If you are installing SGM using an NFS-exported CD-ROM drive, image checking might take several hours to complete. To avoid this problem, enter **./setup.sh -i**, which disables image checking.

Step 5 The SGM installation program displays the installation menu:

```
1) Review README File First (Recommended)
2) Install SGM Server and Client
3) Install SGM Server Only
4) Install SGM Client Only
5) Install SGM Call Data Mediation Server (Linux Only)
6) Exit Setup

Please choose an option ->
```

Choose one of the following installation options:

- To read the latest information about SGM in the README file, type **1** and press **Return**. The README file contains late-breaking information about SGM that might not be found in the other product documentation.
- To install only the SGM client on the system, type **4** and press **Return**.

Step 6 The SGM installation program performs a system requirements check. SGM determines whether all the required patches are installed. For details on required patches, see the "Solaris Patch Requirements" section on page 1-5.

If all the required patches are not installed, the following warning appears:

```
Some of the required OS patches are not installed on this system.
Do you want to continue to install the SGM - Client ? (y/n)? [N]
```

Caution Installing the SGM - Client without necessary OS patches is not recommended, and may restrict your use of some of the SGM Client features.

Step 7 SGM attempts to determine whether there is adequate space in the default installation directory, */opt*, to install the SGM client.

- If there is adequate space, installation continues.
- If there is not adequate space, you must specify a different directory. See the "Installing SGM to a Different Directory" section on page 2-24 for more information. After you specify a different directory, installation continues.

The SGM installation program also checks the following directories to determine whether there is adequate space: */var/sadm*, */var/tmp*, and */tmp*. If there is not adequate space on any of these directories, the following message appears:

```
There is insufficient space in <directory> for installation to proceed.
```

The installation process stops and exits.

Step 8 If your system does not meet the requirements for Express Install, installation continues with Step 9.

If your system does meet the requirements, the SGM installation program displays the following prompt:

```
The Express Install takes all defaults and places the product in /opt. No more questions
will be asked.
Do you want the Express Install (y/n)? [Y]
```

The Express Install option uses default settings, minimizing system prompts.

- To choose the Express Install, press **Return**, and skip to Step 16.
- To choose the standard installation, which prompts you for additional information, type **n**, press **Return**, and continue with Step 15.

Step 9 If you are not upgrading to a new version and release of the SGM client, continue with Step 10.

If you are upgrading to a new version and release of the SGM client, the SGM installation program displays the following prompt:

```
Do you want to upgrade to SGM - Client version 4.1? (y/n)? [Y]
```

Press **Return**.

The SGM installation program begins installing the SGM client, then displays the following prompt:

```
Press Return to continue ->
```

Press **Return**, and skip to Step 16.

Step 10 The SGM installation program displays the following prompt:

```
What is the hostname of the SGM Server?
```

Type the name of the SGM server host, and press **Return**.

Step 11 The SGM installation program displays the following prompt:

```
Which tcp port does SGM Web Server use? [1774]
```

To accept the default value (recommended), press **Return**; or type a different, numeric TCP/IP port number and press **Return**.

(SGM works on standard Web port 80, but software installed in the future that requires port 80 might conflict with SGM.)

Do not enter a non-numeric port number. If you do, you are prompted to enter a numeric port number.

Step 12 The SGM installation program displays the following prompt:

```
Which tcp port does SGM JSP Server use? [1775]
```

To accept the default value, press **Return**; or type a different, numeric TCP/IP port number and press **Return**.

Do not enter a non-numeric port number. If you do, you are prompted to enter a numeric port number.

Step 13 The SGM installation program displays the following prompt:

```
Which tcp port does SGM Naming Server use? [44742]
```

To accept the default value, press **Return**; or type a different, numeric TCP port number and press **Return**.

Do not enter a non-numeric port number. If you do, you are prompted to enter a numeric port number.

Step 14 The SGM installation program displays the following prompt:

```
What is the executable path name for Browser? [/opt/netscape/netscape]
```

- If Netscape Communicator is located in the default directory (*/opt/netscape/netscape*), press **Return**.
- If Netscape Communicator is located in a directory other than the default, type the full path to the file, including the file name, and press **Return**.
- If Mozilla is your browser, type the full path to the file, including the file name, and press **Return**.

Tip If necessary, you can change the location of Netscape Communicator or Mozilla after installing SGM by using the **sgm browserpath** command.

Step 15 The SGM installation program displays the following prompt:

```
Where should the product be installed? [/opt]
```

To accept the default value, press **Return**; or type a different location and press **Return**.

Step 16 The SGM installation program displays the following prompt:

```
Integrate client with a CiscoWorks Server? [n]
```

- If you do not want to integrate the SGM client with a CiscoWorks server, press **Return**. The SGM installation program displays the following message and prompt:

  ```
  Integration with a CiscoWorks Server was not chosen.
  Press Return to continue ->
  ```

  Press Return.

- If you want to integrate the SGM client with a CiscoWorks server, type **y** and press **Return**. The SGM installation program displays the following prompt:

  ```
  Enter server name for CiscoWorks Server. [your_cw_server]
  ```

  where *your_cw_server* is the host name of the CiscoWorks server.The CiscoWorks server can be the same as the SGM server, or it can be a different server.

  To accept the default value, press **Return**; or type a different server name and press **Return**. The SGM installation program displays the following prompt:

  ```
  Enter port number for CiscoWorks Web Server on cw_server. [1741]
  ```

  where *cw_server* is the name of the CiscoWorks server. To accept the default port number, press **Return**; or type a different, numeric port number and press **Return**.

  Do not enter a non-numeric port number. If you do, you are prompted to enter a numeric port number.

The SGM installation program displays the following message and prompt:

```
Integration with CiscoWorks server {cw_server} complete.
Press Return to continue ->
```

Press **Return**.

Note If the CiscoWorks server was not running when you began installing SGM, this step does not start the server automatically. You must start the server manually.

Step 17 If you are not upgrading to a new version and release of the SGM client, continue with Step 18.

If you are upgrading to a new version and release of the SGM client, the SGM installation program displays the following prompt:

```
INFO: Restoring old SGM Client Data Files...
Press Return to continue ->
```

Press **Return**, and continue with Step 18.

Step 18 The SGM installation program displays the following messages and prompt:

```
No Errors were encountered during installation.
Please review /var/tmp/cisco_sgmcli_install.log for detailed results.
Would you like to view the log? [n]
```

- If you do not want to view the log, installation is complete. Press **Return**.
- If you want to view the log, type **y** and press **Return**. The client installation log is displayed, followed by the prompt:

  ```
  Press Return to continue ->
  ```

  Press **Return**.

Step 19 To verify that the installation was successful, see the procedures in the "Verifying SGM Installation" section on page 2-27.

Step 20 The SGM installation program displays the following SGM start menu:

```
1) Start SGM Server and Client
2) Start SGM Server Only
4) Exit Setup

Please choose an option ->
```

To start SGM at this time, type one of the options and press **Return**. To start SGM at a later time, see the "Starting SGM" section on page 2-28.

Note Launching the client on Solaris requires the variable DISPLAY to be set to your display in your unix shell environment. If you used telnet to get to the server, you will not have access to your display and will not have the DISPLAY variable set automatically for you.

Installing SGM to a Different Directory

To install the SGM software in a directory other than the */opt* default directory, use the standard installation and specify a new location to install the SGM software.

In the following example, the SGM installation program detects insufficient space in the */opt* default directory and recommends an alternate directory, */usr2*, which has enough available space:

```
============================================================
================- Disk Space Usage check -==================
============================================================
INFO: For this product the default disk space requirements are:
        /opt                  75 MB
        /var/sadm              1 MB
        /var/tmp               1 MB
        /tmp                   1 MB
INFO: Checking default disk space requirements...
INFO: /opt has insufficient space for installation.
INFO: Express Install has been disabled.
============================================================
INFO: Local disks on this machine with enough space to install:
Filesystem            kbytes    used   avail capacity  Mounted on
/dev/dsk/c0t4d0s6    1925720  288623 1444527    17%    /usr2
Where should the product be installed? [/usr2]
```

To accept the recommended directory, press **Return**. Otherwise, specify another directory and press **Return**.

Specifying Alternate Ports

The SGM client and server software must be set up to communicate on the same port. If you are installing the SGM client on the same machine as the SGM server, the installation program handles this automatically. If you are installing the SGM client on a separate system from the server, **you must make sure the ports specified during the client installation match those installed for the SGM server**. In most installation situations the default ports should be available for the SGM client and server.

The SGM server software uses the following default ports:

- Web Server—1774/tcp
- JSP Server—1775/tcp
- Naming Server—44742/tcp

The SGM client software must know which ports the SGM server is using. By default, the client uses the following ports:

- Web Server—1774/tcp
- JSP Server—1775/tcp
- Naming Server—44742/tcp

When you install the SGM server, or the SGM server and client, the SGM installation program determines whether or not these ports are available. (This is not done when you install only the SGM client.) If there are conflicts with the ports, the software provides you with the option to specify an alternate port number.

To determine the ports that are currently in use on your system, use the **netstat** command for Solaris, which includes the corresponding port type (TCP).

```
# netstat -a -n -f inet -P tcp
```

Note If you are specifying an alternate port, remember that ports 1 through 1023 are reserved for system processes.

Installing the SGM Client for Solaris Using the Web Server

You can access the SGM client installation software from the SGM Web Server. This is useful if you do not have the CD-ROM, or if you prefer to download the software from the SGM server. Once you have downloaded the SGM client installation software to your system, you must install the software on your local system by entering the **setup.sh** command.

The following procedure explains how to download, unzip, and install the SGM client software on a Solaris system.

To install the SGM client using the Web interface:

Step 1 Create a temporary directory in a disk partition that contains at least 60 MB of space on the system where you want to install the SGM client software.

Step 2 From your browser, go to the URL for the SGM Web Server:

`http://sgm_web_server:1774`

where *sgm_web_server* is the name or IP address of the SGM Web Server and *1774* is the Web port being using by SGM. (**1774** is the default port number.) If you do not know the name or Web port of the SGM Web Server, contact the system administrator who installed the SGM server software.

SGM displays the SGM Server Home Page (Figure 2-1).

Figure 2-1 SGM Server Home Page

Step 3 Click **Download Solaris Client**. The SGM Client for Solaris page is displayed.

Step 4 Click **Download SGM Client for Solaris** to download the client software installation files.

Step 5 When prompted, specify the directory where you want the installation software files to be downloaded, such as */tmp/sgmClient*.

Step 6 From the Solaris command line, change to the directory where you downloaded the installation software and unzip the files using the following command:

```
# unzip sgmClient41-download-sol.zip
```

Step 7 Change to the CDImage directory using the following command:

```
# cd sgmClient41-download-sol
```

Step 8 Run the SGM client software installation program by entering the following command:

```
# ./setup.sh
```

Note If you are installing SGM using an NFS-exported CD-ROM drive, image checking might take several hours to complete. To avoid this problem, enter **./setup.sh -i**, which disables image checking.

The SGM installation program displays the installation menu:

```
1) Review README File First (Recommended)
4) Install SGM Client Only
5) Exit Setup

Please choose an option ->
```

Choose one of the following installation options:

- To read the latest information about SGM in the README file, type **1** and press **Return**. The README file contains late-breaking information about SGM that might not be found in the other product documentation.
- To install only the SGM client on the system, type **4** and press **Return**.

The rest of the SGM client installation is identical to Step 10 through Step 20 of the "Installing the SGM Client Only" section on page 2-19.

Step 9 After verifying that the SGM client software installed successfully, remove all installation files in the temporary directory using the following command:

```
# rm -rf tmp/sgmClient
```

Where *tmp/sgmClient* is the directory containing the downloaded files.

Verifying SGM Installation

You can verify successful installation of the SGM server and client software by performing the following tasks:

Checking for Error Messages

During installation, messages are recorded in a log file to provide diagnostic information about problems that might arise. The location of the installation log file is provided in a message at the end of the SGM installation script.

To check for installation error messages:

Step 1 Log in as the root user as described in the "Becoming the Root User" section on page 2-4.

Step 2 Use the following command to examine the SGM server installation log:

```
# more install_directory/install/cisco_sgmsvr_install.log
```

Where *install_directory* is the directory in which SGM was installed. The default installation directory for SGM is */opt/CSCOsgm*.

Step 3 Use the following command to examine the SGM client installation log:

```
# more install_directory/install/cisco_sgmcli_install.log
```

Step 4 Press the **Space bar** to scroll through the display one screen at a time.

You can also display the SGM server and client installation logs using the **sgm installlog** command. For more information, see the "SGM Command Reference" appendix in the *Cisco Signaling Gateway Manager User Guide*.

Viewing Packaging Information for the SGM Server and Client

You can use the **pkginfo** command to verify that the SGM server (CSCOsgm-s) and SGM client (CSCOsgm-c) software packages are installed on your system.

To view packaging information for the SGM server and client:

Step 1 Enter one of the following **pkginfo** commands:

```
# pkginfo -l CSCOsgm-s
# pkginfo -l CSCOsgm-c
```

Step 2 Verify that you receive output similar to the following display for each package you query with the **pkginfo** command:

```
   PKGINST:   CSCOsgm-s
      NAME:   Cisco SGM Server
  CATEGORY:   application
      ARCH:   sparc
   VERSION:   4.1
   BASEDIR:   /opt/CSCOsgm
    VENDOR:   Cisco Systems, Inc
      DESC:   Cisco SGM Server
    PSTAMP:   sgm-sun320040213143816
  INSTDATE:   Feb 13 2004 18:13
   HOTLINE:   1-800-553-2447
     EMAIL:   tac@cisco.com
    STATUS:   completely installed
     FILES:    2532 installed pathnames
                  1 linked files
                176 directories
               2342 executables
                  1 setuid/setgid executables
             233768 blocks used (approx)
```

If the package was not found, the following message is displayed:

```
ERROR: information for "CSCOsgm-s" was not found
```

The SGM software package was not installed. Install SGM again.

Verifying the Installation Directories

After you install SGM, use the **ls** command to verify that you have a new directory structure containing the SGM software.

- For the SGM server, the default directory is */opt/CSCOsgm*.
- For the SGM client, the default directory is */opt/CSCOsgmClient*.
- If you installed SGM in a directory other than */opt*, then the *CSCOsgm* and *CSCOsgmClient* directories are located in that directory.

Starting SGM

After you install the SGM server and client software, verify that you can start the SGM software. You can start the SGM software by selecting the corresponding option on the start-up menu after the installation program is complete.

You can also start the SGM server and client from the command line.

There is no harm in attempting to start an SGM server or client if it is already running.

Note The following procedures assume that you installed SGM in the default directory, */opt*. If you installed SGM in a different directory, change to that directory instead of */opt*.

To start just the SGM server from the command line, log in as the root user and use the following commands:

```
# cd /opt/CSCOsgm/bin
# ./sgm start
```

To start just the SGM client from the command line, use the following commands:

```
# cd /opt/CSCOsgm/bin
# ./sgm client server_name
```

For a complete list of all of the SGM commands, see the "SGM Command Reference" appendix in the *Cisco Signaling Gateway Manager User Guide*.

If the SGM server and client installation was successful, and if you did not configure the SGM server to automatically discover your network the first time the server starts after installation, SGM displays the Discovery Dialog (Figure 2-2) and the SGM Main Window (Figure 2-3).

Figure 2-2 Discovery Dialog

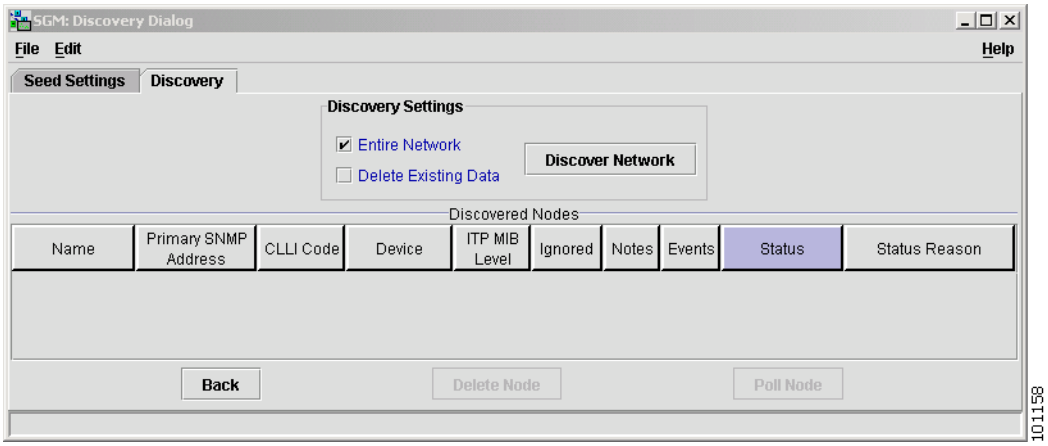
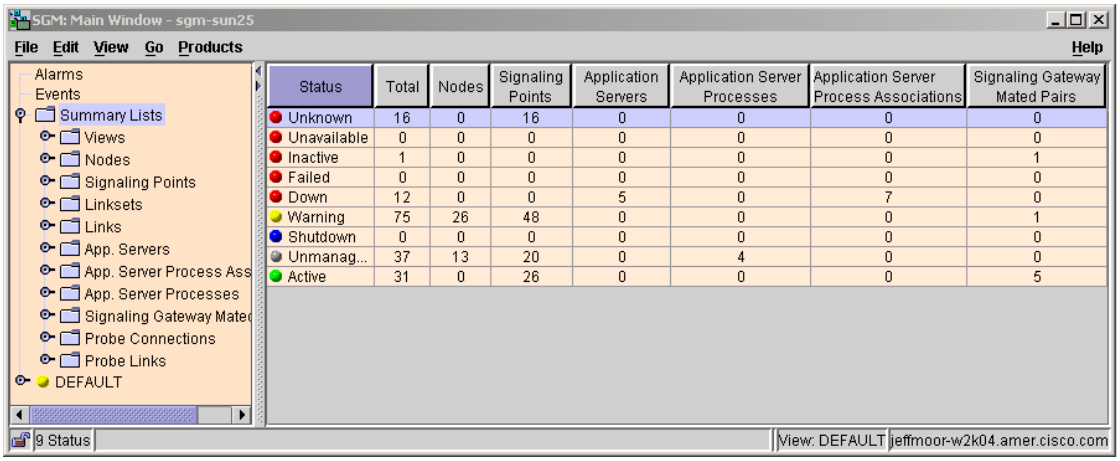


Figure 2-3 SGM Main Window



Because the SGM database contains no information, the SGM Main Window is blank. The database is populated, and reflected in the SGM Main Window, when you run Discovery for the first time; SGM displays the Discovery Dialog to make it easier for you to do so. In fact, any time you start the SGM client and the SGM database is empty, SGM automatically opens the Discovery Dialog so you can run Discovery and populate the database. For more information about Discovery, see the "Discovering the Network" section of the *Cisco Signaling Gateway Manager User Guide*.

Uninstalling SGM

The uninstall program provides you with a menu similar to that presented for installation. You can choose whether to uninstall both the SGM client and server software (for example, after a failed installation) or uninstall each package individually.

Uninstalling SGM is discussed in the following sections:

Overview of Uninstalling SGM

When you run the uninstall program, remember the following information:

- If you have already installed SGM and you are upgrading to a new version or release, SGM automatically preserves all data necessary for a successful upgrade. However, if you uninstall SGM before upgrading, all SGM data is also uninstalled, and is lost.
- The default for each prompt is the value in square brackets [ ]. To accept the default value, press **Return**.
- To stop the installation script at any time, press **Break** or **Ctrl-C**.

Uninstall both the SGM server software and client software on a Solaris system, either at the same time or separately, using the following menu options provided by the uninstall program.

1. **Uninstall SGM Server and Client**—Use when the SGM server and client software reside on the same Solaris system and you want to remove all of the SGM software on that system. This option removes all of the SGM packages from the system: the SGM server package (CSCOsgm-s) and SGM client package (CSCOsgm-c).
2. **Uninstall SGM Server Only**—Use when you want to remove only the SGM server software on this system. This option removes the SGM server package (CSCOsgm-s).

   Note Uninstalling the SGM server also disables the SGM client. If you want to uninstall the SGM server, we strongly recommend that you uninstall both the SGM server and the SGM client.

3. **Uninstall SGM Client Only**—Use when you want to remove only the SGM client software on this system. This option removes the SGM client package (CSCOsgm-c).

Running the Uninstall Program

To uninstall the SGM software:

Step 1 Log in as the root user as described in the "Becoming the Root User" section on page 2-4.

Step 2 If you are running an SGM client locally, exit all open SGM windows.

Tip To display a list of all SGM clients that are connected to the SGM server, use the **sgm who** command. To notify all SGM clients that you are uninstalling SGM, use the **sgm wall** command.

You do not need to stop the SGM server; the SGM uninstall program stops the server automatically.

Step 3 To start the uninstall script, enter the following command:

```
# /opt/CSCOsgm/bin/sgm uninstall
```

If you installed the SGM client only, enter the following command:

```
# /opt/CSCOsgmClient/bin/sgm uninstall
```

You can also use the **sgm uninstall** command; see the "SGM Command Reference" appendix in the *Cisco Signaling Gateway Manager User Guide*.

Step 4 The SGM uninstall program displays the uninstall menu. The options displayed depend on what you have installed. For example, if you have installed only the SGM server, then your only option is to uninstall the SGM server.

Choose one of the following actions:

- To uninstall both the SGM server and client software, type **1** and press **Return**. The SGM client is uninstalled, followed by the SGM server.
- To uninstall only the SGM server, type **2** and press **Return**.
- To uninstall only the SGM client, type **3** and press **Return**.

Step 5 The SGM uninstall program asks you to verify that you want to uninstall the SGM client, server, or both. When prompted, type **y** and press **Return**.

Step 6 When uninstall is complete, the SGM uninstall program displays messages indicating that the packages were deleted successfully.

For example, the following example shows the message received when uninstalling the SGM server:

```
INFO: The following Cisco SGM packages
INFO: have been successfully deleted from the system: CSCOsgm-s
Please review /var/tmp/cisco_sgmsvr_uninstall.log for detailed results
```

Step 7 To verify that the SGM server and its associated services are uninstalled, enter the following **pkginfo** commands:

```
# pkginfo -l CSCOsgm-s
ERROR: information for "CSCOsgm-s" was not found

# pkginfo -l CSCOsgm-c
ERROR: information for "CSCOsgm-c" was not found
```