CHAPTER 4

Managing Modules

The following modules can be managed in CGM:

- GRPs
- Line cards—ATM, Ethernet, POS, and DS-3
- Supporting modules—CSCs, SFCs, AC or DC power supply modules, fan tray modules, blower modules

This chapter contains the following sections:

- CGM Module Names
- Module Configuration
- Module Fault Management
- Module Performance (only available on GRPs)
- Module Inventory

CGM Module Names

The naming convention used in CGM for line cards, GRPs, CSCs, and SFCs is an abbreviated form of the type of module, followed by the slot number of the module. For example, an ATM line card in slot 6 would be called A6. A POS line card in slot 3 would be called P3.

The following table outlines each module and its respective abbreviation in CGM.

Table 4-1 Abbreviated Module Names

Module	CGM Abbreviation
DS-3	D
POS	P
ATM	A
Fast Ethernet	FE
Gigabit Ethernet	GE
Unrecognized Modules*	GM (Generic Module)
GRP	RP

Table 4-1 Abbreviated Module Names

Module	CGM Abbreviation
CSC	C
SFC	SF

*Note that basic module management services are provided for any non-standard CGM modules.

Module Configuration

The Configuration window allows you to commission or decommission any module. You can also provide text descriptions of the specific module, if desired.

The Module Configuration section covers the following areas:

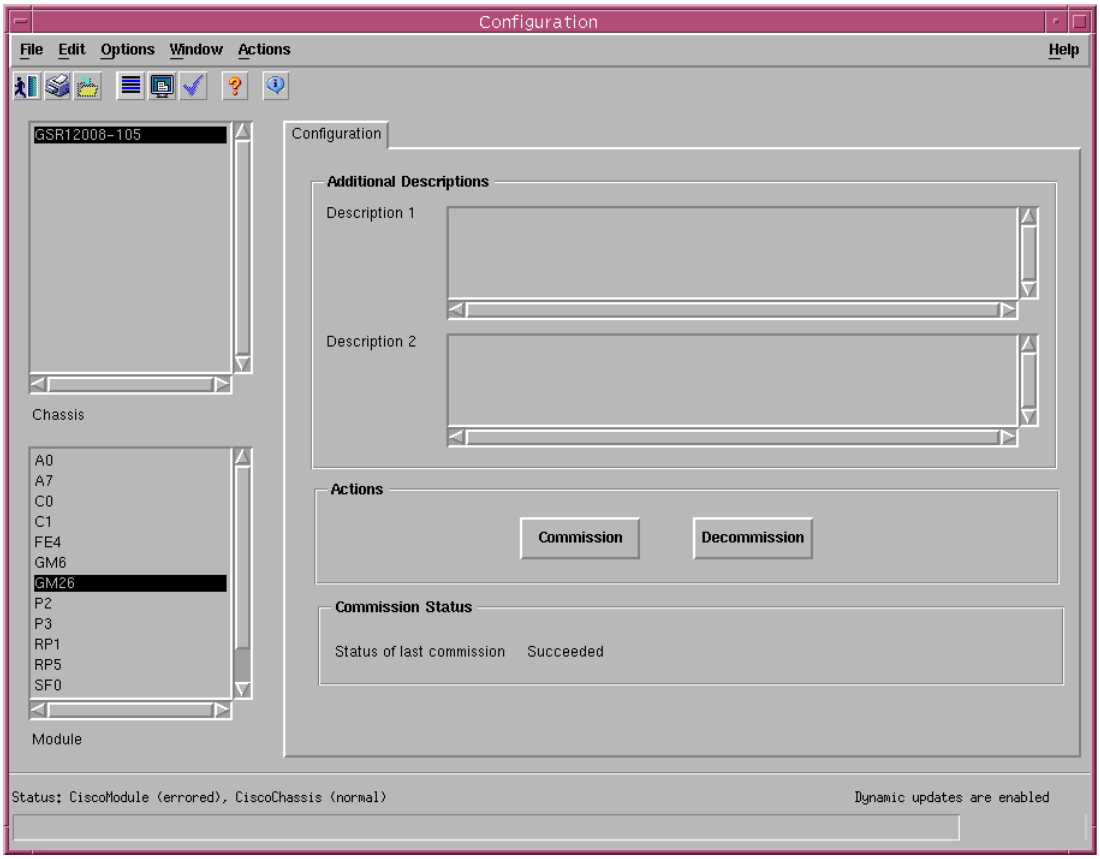
- Viewing the Module Configuration Window
- Commissioning or Decommissioning a Module
- Module Configuration Window—Detailed Description

Viewing the Module Configuration Window

To view the Configuration window, proceed as follows:

Step 1 Right-click on a selected module, then choose **CGM Management**>**Physical**>**Module**>**Configuration**. The Configuration window appears.

Figure 4-1 Configuration Window



Step 2 Make sure that the correct chassis and module are selected in the lists at left.

Step 3 You can type in any descriptive text in the Description 1 and Description 2 areas, if required.

Commissioning or Decommissioning a Module

To commission or decommission a module, proceed as follows:

- Choose the chassis and corresponding module you want to commission or decommission from the lists at left.
- Click the corresponding **Commission** or **Decommission** button.

Commissioning

Commissioning a GRP also commissions all objects under the GRP, which includes all line cards, interfaces, and ATM connections. Commissioning a supporting module commissions only that module.

Commissioning a GRP or any supporting module initiates the following activities:

- Heartbeat polling begins on the object
- The state is changed to normal

- Status data becomes available

Commissioning a line card initiates the following activities:

- All interfaces and ATM connections on the line card are also commissioned
- Heartbeat polling begins on the line card, interfaces, and any ATM connections
- The line card, active interfaces, and active ATM connections are placed in the normal state
- Any interfaces or ATM connections that are pre-deployed but not active change to the errored state
- Status data becomes available on the line card and interfaces

Decommissioning

Decommissioning a GRP or any supporting module initiates the following activities:

- Heartbeat polling stops on the object
- The state is changed to decommissioned
- Status data is no longer available
- Performance polling stops on the module (if enabled)

Decommissioning a line card initiates the following activities:

- All interfaces and ATM connections on the line card are also decommissioned
- Heartbeat polling stops on the line card, interfaces, and ATM connections
- The line card, interfaces, and ATM connections are placed in the decommissioned state
- Status data is no longer available on the line card and interfaces
- Performance polling stops on the line card and interfaces (if enabled)

Module Configuration Window—Detailed Description

The Module Configuration window has one tab, Configuration. The Configuration tab has three areas:

- Additional Descriptions
- Actions
- Commission Status

Additional Descriptions

The Additional Descriptions area contains two description fields, where you can enter any descriptive text about the module, as desired.

Actions

The Actions area contains two buttons:

- **Commission**—Commissions the selected module.
- **Decommission**—Decommissions the selected module.

Commission Status

The Commission Status area provides the status of the last commission performed on the selected module. Possible values are succeeded or failed.

Module Fault Management

The Module Fault Management section covers the following areas:

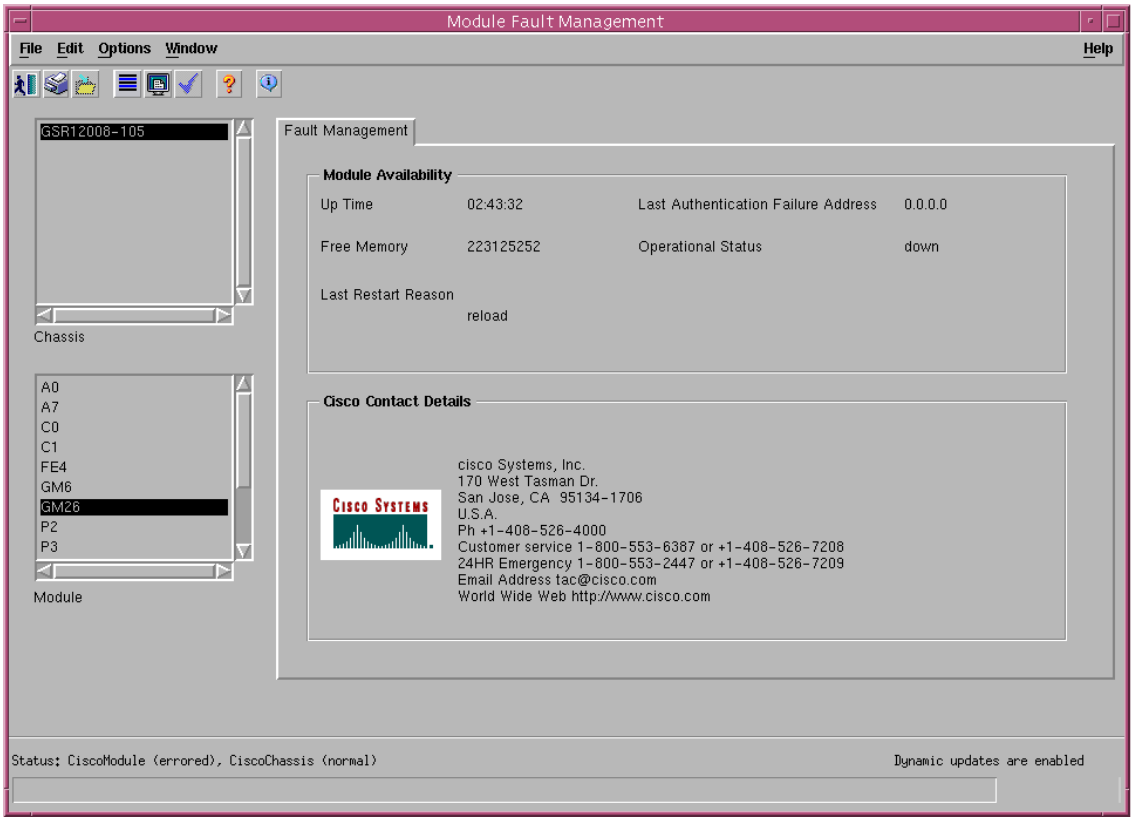
- Viewing the Module Fault Management Window
- Module Fault Management Window—Detailed Description

Viewing the Module Fault Management Window

To view the Module Fault Management window, proceed as follows:

Step 1 Right-click on a GRP, line card, or supporting module, then choose **CGM Management>Physical>Module>Fault Management**.

Figure 4-2 Module Fault Management Window



Step 2 Choose the relevant chassis and module from the list boxes at left. The fault management information for the selected module appears.

For detailed information on the areas within this tab, refer to the "Module Fault Management Window—Detailed Description" section on page 4-6.

Note The information in this tab is read-only.

Module Fault Management Window—Detailed Description

The Module Fault Management window has one tab, Fault Management. The Fault Management tab has two areas: Module Availability and Cisco Contact Details.

Module Availability

The Module Availability area contains the following fields:

- Up Time—Displays the time after the network portion of the system was last re-initialized for the selected module.
- Free Memory—Displays the memory space (in bytes) currently unused by the selected module.
- Last Restart Reason—Displays the reason for the system being re-initiated for the selected module.
- Last Authentication Failure Address—Displays the last authorization failure IP address for the selected module.
- Operational Status—Displays the current operational status of the selected module. Possible values are:
  - Up—Module is recognized by the device and is operational.
  - Down—Module is not recognized by the device or not enabled for operation.
  - Standby—Module is enabled and is acting as standby. This value is only applicable for redundant GRPs.

Cisco Contact Details

This area provides Cisco Systems, Inc. address information, with telephone and e-mail contact details.

Module Performance

The Module Performance window allows you view the current performance information for the selected module and allows you to enable and disable performance logging on the selected module.

The Module Performance section covers the following areas:

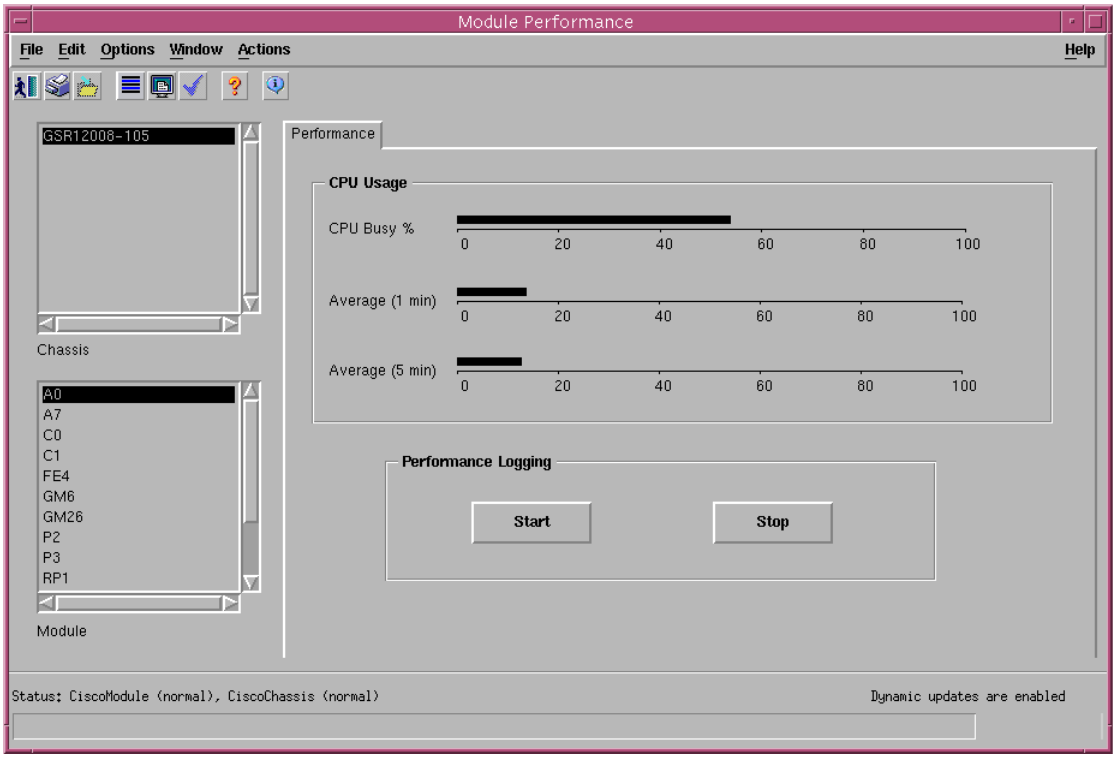
- Viewing the Module Performance Window
- Enabling or Disabling Performance Logging
- Module Performance Window—Detailed Description

Viewing the Module Performance Window

To view the Performance tab, proceed as follows:

Step 1 Right-click on a selected module, then choose **CGM Management>Physical>Module>Performance**. The Module Performance window appears.

Figure 4-3 Module Performance Window



Step 2 Choose the relevant chassis and module from the list boxes at left. The performance information for the selected module is displayed.

Tips You might notice that in the module list box, line cards are listed, as well as supporting modules. Although line cards and supporting modules are listed, no performance data is available for these modules.

Enabling or Disabling Performance Logging

You can enable or disable performance logging on a selected module by clicking **Start** or **Stop**, respectively. For further details, refer to the performance logging section below.

Module Performance Window—Detailed Description

The Module Performance window has one tab, Performance. The Performance tab has two areas: CPU Usage and Performance Logging.

CPU Usage

The CPU Usage area displays the following fields:

- CPU Busy %—Displays the percentage of CPU put to use for the selected module.
- Average (1 min)—Displays the percentage of CPU being utilized averaged over a minute period for the selected module.
- Average (5 min)—Displays the percentage of CPU being utilized averaged over five minute period for the selected module.

Performance Logging

The Performance Logging area allows you to start or stop performance logging.

- **Start**—Click **Start** to enable performance logging for the selected module. Enabling performance logging allows performance data to be gathered for the selected module. Performance polling occurs every 15 minutes. Performance data is then gathered and stored for historical review.

  Current performance data can be viewed in the performance windows, or you can view historical performance data in Performance Manager.

  Note The **Start** button is not available if performance logging is already enabled.

- **Stop**—Click **Stop** to stop all performance logging on the selected module. Disabling performance logging stops performance data from being gathered for the selected module.

  Note The **Stop** button is not available if performance logging is already disabled.

Module Inventory

The Module Inventory section covers the following areas:

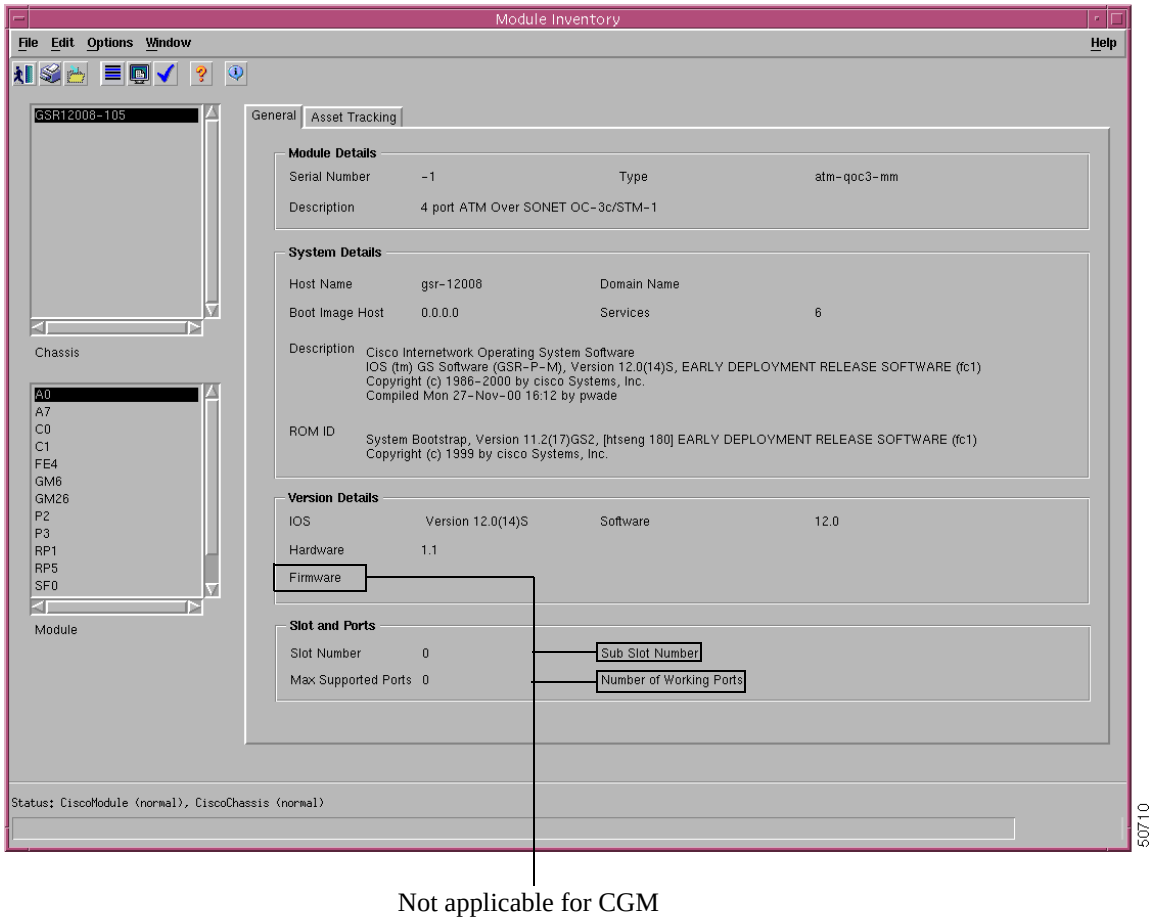
- Viewing the Module Inventory Window
- Module Inventory Window—Detailed Description

Viewing the Module Inventory Window

To view the Module Inventory window for a selected module, proceed as follows:

Step 1 Right-click on a selected module. Choose **CGM Management>Physical>Module>Inventory**. The Module Inventory window appears.

Figure 4-4 Module Inventory Window



Step 2 Choose the relevant chassis and module from the list boxes at left. The inventory information for the selected module is displayed.

Note The Module Inventory window is read-only.

Module Inventory Window—Detailed Description

The Module Inventory window has two tabs: General and Asset Tracking. Only the General tab is applicable to CGM. The Asset Tracking tab is not applicable.

General

The General tab has four areas:

Module Details

The Module Details area contains the following fields:

Serial Number—Displays the serial number of the selected module. This number is zero if data is unavailable.

Description—Displays a description of the selected module.

Type—Displays the type of the selected module.

System Details

The System Details area contains the following fields:

Host Name—Displays the host name of the system which contains the selected module.

Boot Image Host—Displays the IP address of the host, which supplies the software currently running.

Description—Displays the hardware type, software operating system, and networking software of the system that contains the selected module.

ROM ID—Displays the system boot trap description and version identifier.

Domain Name—Displays the domain portion of the domain name for the system which contains the selected module.

Services—Displays all the services available on the system.

Version Details

The Version Details area contains the following fields:

IOS—Displays the IOS operating software version being used by the selected module.

Hardware—Displays the version of the selected module.

Firmware—Not applicable to CGM.

Software—Displays the software version installed in the card. No information appears if data is not available.

Slot & Ports

The Slot & Ports area contains the following fields:

Slot Number—Slot position the module occupies in the chassis.

Max Supported Ports—Maximum number of ports supported on this module.

Sub Slot Number—Not applicable to CGM.

Number of Working Ports—Not applicable to CGM.

Asset Tracking

The Asset Tracking tab is not applicable to CGM.