



Environmental Monitoring

This chapter describes the environmental monitoring features in the Catalyst 4006 switch with Supervisor Engine III. It also provides guidelines, procedures, and configuration examples.

This chapter consists of the following sections:

- [Understanding How Environmental Monitoring Works, page 22-1](#)
- [Using the CLI to View System Power Status, page 22-2](#)



Note

For complete syntax and usage information for the commands used in this chapter, refer to the *Command Reference for the Catalyst 4006 Switch with Supervisor Engine III* and the publications at <http://www.cisco.com/univercd/cc/td/doc/product/software/ios121/121cgcr/index.htm>

Understanding How Environmental Monitoring Works

Environmental monitoring of chassis components provides early warning indications of possible component failure to ensure safe and reliable system operation and avoid network interruptions. This section describes the monitoring of these critical system components, which will help you to identify and rapidly correct hardware-related problems in your system.

Environmental Monitoring Using CLI Commands

This section describes the **show environment** CLI command.

Enter the **show environment [alarm | status | temperature]** command to display system status information. Keyword descriptions in [Table 22-2](#)

Table 22-1 *show environment* Keyword Descriptions

Keyword	Purpose
alarm	Displays environmental alarms
status	Displays field-replaceable unit (FRU) operational status and power and temperature information
temperature	Displays temperature information

LED Indications

There are two alarm types, major and minor. Major alarms indicate a critical problem that could lead to the system being shut down. Minor alarms are for informational purposes only, giving you notice of a problem that could turn critical if corrective action is not taken.

When the system has an alarm (major or minor), indicating an over-temperature condition, the alarm is not canceled or any action taken (such as module reset or shutdown) for 5 minutes. If the temperature falls 5°C (41°F) below the alarm threshold during this period, the alarm is canceled.

Table 22-2 lists the LEDs that are used as environmental indicators for the supervisor engine and switching modules.


Note

Refer to the *Catalyst 4000 Family Module Installation Guide* for additional information on LEDs, including the supervisor engine system LED.

Table 22-2 Environmental Monitoring for Supervisor Engine and Switching Modules

Component	Alarm Type	LED Indication	Action
Supervisor engine temperature sensor exceeds major threshold ¹	Major	Status ² LED red	Syslog message. If the overtemperature condition is not corrected, the system shuts down after 5 minutes.
Supervisor engine temperature sensor exceeds minor threshold	Minor	Status LED orange	Syslog message. Monitor the condition.

1. Temperature sensors monitor key supervisor engine components including daughter cards.
2. A STATUS LED is located on the supervisor engine front panel and all module front panels.

Using the CLI to View System Power Status

Enter the **show power** command to view the current power status of system components as follows:

```
Switch# show power
system power total available = 750 Watts
system power used = 260 Watts
system power available = 490 Watts
power supply 1 :Ac400W
power supply 1 :good
power supply fan sensor 1 :good
power supply 2 :Ac400W
power supply 2 :good
power supply fan sensor 2 :good
power supply 3 is not present.
power entry module 1 is not present.
Switch#
```