



Troubleshooting Hardware Components

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Overview

The key to success when troubleshooting the system hardware is to isolate the problem to a specific system component. The first step is to compare what the system is doing to what it should be doing. Because a startup problem can usually be attributed to a single component, it is more efficient to isolate the problem to a subsystem rather than troubleshoot each separate component in the system.

Problems with the initial power up are often caused by a module that is not firmly connected to the backplane or a power supply that has been disconnected from the power cord connector.

Overheating can also cause problems with the system, though typically only after the system has been operating for an extended period of time. The most common cause of overheating is the failure of a fan module.

SNMP Traps

You can set SNMP traps to monitor fans, power supplies, and temperature settings, or to test a call home application. For details, see the *Configuration Guide* for the version of Cisco UCS Manager that you are using. The configuration guides are available at the following URL:

http://www.cisco.com/en/US/products/ps10281/products_installation_and_configuration_guides_list.html

Server Port Link State Transitions

When cables of server ports are removed from the Fabric Interconnect, Cisco UCS Manager displays a message indicating that the link is down because of link failure or not connected. Before the cable is plugged back in, a false "[F0276][cleared]" event might be logged after 20 to 30 seconds.

When a port that is Up gets disconnected, it transitions to a Link Down status.

- When a port has a Link Down status, it checks if an SFP is inserted.
- If an SFP is inserted, the port status remains at Link Down, and the F0276 event is not cleared. This situation occurs when the SFP cable is plugged into the Fabric Interconnect port, and the SFP at the I/O module is disconnected.
The "Link down or not connected" fault appears, and the fault is not cleared until the SFP is plugged back into the I/O module port.
- If there is no SFP detected, the port status transitions from Link Down status to SFP Not Present. This situation occurs when the SFP is plugged into the I/O module and the other end is not plugged into the Fabric Interconnect port that is configured to be the server.
- When the port status is no longer Link Down, the F0276 is cleared.

System Hardware Best Practices

Installation Best Practices

When installing the chassis, follow these best practices:

- Plan your site configuration and prepare the site before installing the chassis.
- Verify that you have the appropriate power supplies for your chassis configuration.
- Install the chassis following the rack and airflow guidelines presented in this guide.
- Verify that the chassis is adequately grounded.

Initialization Best Practices

When the initial system boot is complete, verify the following:

- Power supplies are supplying power to the system.
- Fan modules are operating normally.
- The system software boots successfully.

System Operation Best Practices

To ensure proper operation of your system, take the following actions:

- Make a copy of the running configuration to CompactFlash for a safe backup.
- Never use the **init system** CLI command unless you understand that you will lose the running and startup configuration as well as the files stored on bootflash:.