



Overview

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Overview

Troubleshooting in Cisco Unified Computing System Functional Planes

Cisco Unified Computing System (Cisco UCS) is designed with a distinct separation of management, control, and data planes. This section provides a brief background on how the distribution of processes across the three planes can arise troubleshooting scenarios that must be uniquely identified and resolved.

After Cisco UCS Manager configures a system, it runs without interaction with the management plane. The system accomplishes tasks, such as moving network profiles along with virtual machines, completely through control plane interactions. In a high availability configuration with synchronized state and failover between the two fabric interconnects, Cisco UCS Manager can fail or be taken out of service while its software is upgraded. It can be shut down and upgraded to a new version without affecting the data and control planes. The OS and application can still send or receive LAN and SAN traffic even while Cisco Manager is disabled.

Troubleshooting Reference Guide Overview

This guide provides information to help you troubleshoot common problems in the three functional planes of Cisco UCS. The following table describes the overall organization of the guide:

Chapter	Description
Overview	Overview of troubleshooting in Cisco Unified Computing System based on the three functional planes of operation — management, control, and data planes.
General Troubleshooting Solutions	Information about tools available in Cisco UCS Manager for troubleshooting.
Management Plane	

Chapter	Description
Troubleshooting issues with Cisco UCS B-Series Operation	Troubleshooting information for issues related to Cisco UCS B-Series operation such as server boot, KVM and fabric interconnect issues. It also includes troubleshooting information for Cisco UCS Manager initial configuration.
Control and Data Planes	
Troubleshooting Cisco UCS SAN Connectivity	Troubleshooting information for issues related to SAN boot and SAN Connectivity.
Troubleshooting and Upgrading Cisco UCS Manager	Troubleshooting information for issues related to Firmware upgrade process.
Troubleshoot Server Hardware issues	Troubleshooting information for issues related to server hardware including DIMM memory, CPU, RAID and adapter issues.
Troubleshooting IOM Issues	Troubleshooting information for IOM-related issues.
Additional Troubleshooting Information	Links to additional troubleshooting documents.