Troubleshooting Cisco Data Center Unified Fabric (DCUFT)

Duration 3 Days

Troubleshooting Cisco Data Center Unified Fabric (DCUFTS) is a 3-day instructor led training course designed for Systems and Field Engineers, Consulting Systems Engineers, and Cisco integrators and partners who install , implement, maintain and troubleshoot the Cisco Nexus 7000 Series Switches, the Cisco Nexus 5000 Series Switches, the Cisco Nexus 2000 Fabric Extenders, and the Cisco MDS Series Multilayer Fabric Switches. The course covers the key components and procedures needed to troubleshoot and resolve common issues with the Cisco Nexus 7000 Series, the Cisco Nexus 5000 Series, the Cisco MDS Series, and the Nexus 2000 Fabric Extenders in the network and SAN environment.

COURSE OBJECTIVES

Upon completing this course, you will be able to meet these overall objectives:
- Describe the troubleshooting tools and methodologies available from the CLI and in DCNM used to identify and resolve issues in a Cisco Data Center network architecture.
- Identify and resolve issues related to VLANs and PVLANs.
- Identify and resolve issues related to Port Channels and virtual Port Channels.
- Identify and resolve issues related to Cisco FabricPath.
- Identify and resolve issues related to OTV.
- Identify and resolve issues related to Fibre Channel interface operation.
- Identify and resolve issues related to Fibre Channel Switching when the NX-OS Switch is used in switched mode or in NPV mode.
- Identify and resolve issues related to Fibre Channel over Ethernet (FCoE) in the Cisco Data Center architecture.
- Identify and resolve issues related to the Nexus 7000.
- Identify and resolve issues specific to the Nexus 5000 family.
- Identify and resolve issues specific to the Nexus 2000 FEX.
- Identify and resolve issues specific to the Cisco MDS family of switches.

WHO SHOULD ATTEND

The primary audience for this course is as follows:
- Data center administrators and engineers, network administrators and engineers, consulting systems engineers, and Cisco integrators and partners

The secondary audience for this course is as follows:
- Data center designers and managers, network designers and managers, and systems engineers

PREREQUISITES

The knowledge and skills that a learner must have before attending this course are as follows:
- Good understanding of networking protocols
- Recommended attendance of the Implementing Cisco Data Center Unified Fabric (DCUFI) course
- Recommended attendance of Cisco Nexus 7000 Series (DCNX7K), Cisco Nexus 5000 Series (DCNX5K), and Cisco MDS Series Multilayer Fabric (DCMDS) product courses
- Good understanding of the Fibre Channel Protocol and the SAN environment
- Recommended attendance of a Fibre Channel Protocol class or equivalent experience
- Recommended to read the Robert Kembel books on Fibre Channel and Fibre Channel switched fabrics

COURSE OUTLINE

Tools and Methodologies Troubleshooting
- Understanding CLI Troubleshooting Tools
- Understanding Cisco DCNM Troubleshooting Tools

Layer 2 Issues Troubleshooting
- Troubleshooting VLANs and Private VLANs
- Troubleshooting Port Channels and Virtual Port Channels
- Troubleshooting Cisco FabricPath
- Troubleshooting OTV

SAN Switching Issues Troubleshooting
- Troubleshooting Fibre Channel Interfaces
- Troubleshooting Fibre Channel Fabric Service
- Troubleshooting NPV Mode

Fibre Channel over Ethernet Troubleshooting
- Troubleshooting FCoE
- Troubleshooting DCBx

Platform Specific Issues Troubleshooting
- Troubleshooting the Cisco Nexus 7000
- Troubleshooting the Cisco Nexus 5000 and 5500 Switches
- Troubleshooting the Cisco Nexus 2000 Fabric Extender
- Troubleshooting the Cisco MDS Switch

Course labs

- Lab 2-1: Troubleshoot vPCs
- Lab 2-2: Troubleshoot Cisco FabricPath
- Lab 2-3: Troubleshoot OTV Issues
- Lab 3-1: Troubleshoot FC Interfaces
- Lab 3-2: Troubleshoot FC VSANs, Zones and Domain Services
- Lab 3-3: Troubleshoot NPV Mode
- Lab 4-1: Troubleshoot FCoE – Part 1
- Lab 4-2: Troubleshoot FCoE – Part 2
- Lab 5-1: Troubleshoot VDCs
- Lab 5-2: Troubleshoot CFS
- Lab 5-3: Troubleshoot the Fabric Extender