

Troubleshooting Cisco Data Center Infrastructure (DCIT)

Duration 5 Days

COURSE CONTENT

The Troubleshooting Cisco Data Center Infrastructure (DCIT) skills-building course focuses on troubleshooting of LANs, SANs, Cisco Unified Fabric, Cisco Unified Computing System (UCS), and Cisco Application Centric Infrastructure (ACI). The course provides rich hands-on experience in resolving problems on Cisco MDS switches, Cisco Nexus switches, Cisco fabric extenders (FEXs), Cisco UCS, and Cisco ACI.

Upon completion of this course, you will be able to:

- Describe switch virtualization, machine virtualization, and network virtualization, including overlays, virtual switches, and the Cisco Nexus 1000V solution.
- Describe Cisco FabricPath, Cisco Fabric Extender (FEX) connectivity, and unified fabric.
- Describe Ethernet and virtual port channels.
- Identify Cisco UCS components.
- Describe Cisco UCS organizational hierarchy and role-based access control (RBAC).
- Describe how to deploy servers in Cisco UCS.
- Describe the purpose and advantages of application programming interfaces (API).
- Describe how to deploy servers in Cisco UCS.
- Describe cloud computing basic concepts.
- Describe Cisco UCS Director, its functional blocks and deployment models and also orchestration features: policies, virtual data centers, workflows, and catalogs.
- Describe programmability and orchestration capabilities of Cisco AC, traffic forwarding through the Cisco ACI fabric.
- Explain traffic forwarding mechanisms in Cisco ACI.

PREREQUISITES

To fully benefit from this course, students attending this training should have completed the following courses or obtained the equivalent level of knowledge:

- Introducing Cisco Data Center Networking (DCICN) v6.0 or higher
- Introducing Cisco Data Center Technologies (DCICT) v6.0 or higher
- Implementing Cisco Data Center Infrastructure (DCII) v6.0 or higher
- Implementing Cisco Data Center Virtualization and Automation (DCVAI) v6.0 or higher
- Implementing Cisco Data Center Unified Computing (DCUCI) v6.0 or higher

It is recommended that a learner has the following knowledge and skills before attending this course:

- Configure, secure, and maintain LANs and SANs based on Cisco Nexus and MDS switches
- Configure, secure, and maintain Cisco UCS
- Configure, secure, and maintain Cisco ACI

Who Should Attend

- Network Designer
- Network Administrator
- Network Engineer
- System Engineer
- Consulting Systems Engineer
- Technical Solutions Architect
- Channel Partners

COURSE OUTLINE**Module 1: Troubleshooting the Data Center LAN Network**

- Lesson 2: Overview of the Troubleshooting Process
- Lesson 2: Understanding CLI Troubleshooting Tools
- Lesson 3: Troubleshooting VLANs and Private VLANs
- Lesson 4: Troubleshooting Port Channels and Virtual Port Channels
- Lesson 5: Troubleshooting Cisco FabricPath
- Lesson 6: Troubleshooting Cisco OTV
- Lesson 7: Troubleshooting VXLAN
- Lesson 8: Troubleshooting LISP
- Lesson 9: Troubleshooting Routing Protocols
- Lesson 10: Troubleshooting Data Center LAN Security
- Lesson 11: Troubleshooting Platform-Specific Issues

Module 2: Troubleshooting Data Center SAN

- Lesson 1: Troubleshooting Fibre Channel Interfaces
- Lesson 2: Troubleshooting Fibre Channel Fabric Service
- Lesson 3: Troubleshooting NPV Mode
- Lesson 4: Troubleshooting FCoE

Module 3: Troubleshooting Data Center Unified Computing

- Lesson 1: Troubleshooting Cisco UCS Architecture and Initialization
- Lesson 2: Troubleshooting Cisco UCS Configuration
- Lesson 3: Troubleshooting Cisco UCS B-Series Servers
- Lesson 4: Troubleshooting Cisco UCS B-Series LAN and SAN Connectivity
- Lesson 5: Troubleshooting Cisco UCS C-Series Servers
- Lesson 6: Troubleshooting Cisco UCS C-Series LAN and SAN Connectivity
- Lesson 7: Troubleshooting Cisco UCS C-Series and Cisco UCS Manager Integration

Module 4: Troubleshooting Data Center ACI

- Lesson 1: Exploring the Tools and Methodology of Troubleshooting Cisco ACI