

Course Code: 100490

Learn to diagnose LAN, SAN, Cisco Data Center Unified Fabric, Cisco Unified Computing System and Cisco Application-Centric Infrastructure.

The Troubleshooting Cisco Data Center Infrastructure (DCIT) training shows you how to troubleshoot LAN, SAN, Cisco® Data Center Unified Fabric, Cisco Unified Computing System™ (Cisco UCS®), and Cisco Application-Centric Infrastructure (Cisco ACI®). You will learn methodologies and tools to identify issues that may occur in data center network architecture. You will get extensive hands-on practice troubleshooting installation, configuration, and interconnectivity issues on Cisco Multilayer Director Switch (MDS) switches, Cisco Nexus® switches, Cisco Fabric Extenders (FEXs), Cisco UCS, and Cisco ACI.

This training prepares you for 300-615 DCIT exam. If passed, you earn the Cisco Certified Specialist – Data Center Operations certification and satisfy the concentration exam requirement for the Cisco Certified Network Professional (CCNP) Data Center certification.

This training also earns you 50 Continuing Education (CE) credits toward recertification.

What You'll Learn

This course will help you:

- Learn how to deploy and troubleshoot various components of Cisco data center infrastructure to support performance, resiliency, scalability needs
- Gain knowledge and skills through Cisco's unique combination of lessons and hands-on practice using enterprise-grade Cisco learning technologies, data center equipment, and software
- Qualify for professional-level job roles

After taking this course, you should be able to:

- Describe how to troubleshoot the data center network.
- Describe the troubleshooting tools and methodologies available from the Command-Line Interface (CLI) that are used to identify and resolve issues in a Cisco data center network architecture
- Identify and resolve issues that are related to: Virtual LANs (VLANs) and

private VLANs (PVLANs); port channels and virtual port channels; and Virtual Extensible LAN (VXLAN)

- Describe troubleshooting of routing and high-availability protocols
- Describe troubleshooting of the LAN security features
- Identify and resolve issues that are related to a single device
- Identify and resolve issues that are related to Fibre Channel interface operation
- Identify and resolve Fibre Channel switching issues when the Cisco NX-OS Software is used in switched mode and in N-Port Virtualization (NPV) mode
- Identify and resolve issues that are related to Fibre Channel switching when a Cisco NX-OS switch is used in NPV mode
- Describe Cisco UCS architecture, initial setup, tools, and service aids that are available for Cisco UCS troubleshooting and interpretation of the output
- Describe Cisco UCS configuration and troubleshooting
- Describe Cisco UCS B-Series Blade Server operation and troubleshoot related issues
- Describe UCS B-Series LAN, SAN, and Fibre Channel operations, including in-depth troubleshooting procedures
- Describe Cisco Integrated Management Controller (IMC) tools for validating performance and facilitating data-gathering activities for Cisco UCS C-Series server troubleshooting, and the troubleshooting approach for hardware and firmware failures
- Define the proper procedures for configuring Cisco UCS C-Series LAN and SAN connectivity, avoiding issues with the VIC, troubleshooting connectivity issues
- Troubleshooting Cisco UCS C-Series server integration with Cisco UCS Manager
- Describe Cisco Intersight characteristics
- Explore the Cisco Nexus Dashboard platform
- Explain Cisco Nexus Dashboard cluster connectivity and installation procedures
- Identify the tools, protocols, and methods to effectively troubleshoot Cisco ACI
- Describe how to troubleshoot automation and programmability tools
- Understand functionality provided by the on-box tooling on the Cisco Nexus series switches and implement simple solutions to improve daily operations
- Describe the use of Python and Ansible to leverage the NX-API to implement and verify configuration state using modern workflows

Who Needs to Attend

- Network Designers
- Network Administrators
- Network Engineers
- System Engineers
- Data Center Engineers
- Consulting Systems Engineers
- Technical Solutions Architects

- Cisco Integrators and Partners
- Server Administrators
- Network Managers
- Storage Administrators
- Program Managers
- Project Managers

Prerequisites

There are no prerequisites for this course. However, the knowledge and skills you are recommended to have before attending this training are:

- Configure, secure, and maintain LAN and SAN based on Cisco Nexus and MDS switches
- Configure, secure, and maintain Cisco Unified Computing System
- Configure, secure, and maintain Cisco ACI

These skills can be found in the following Cisco courses:



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CLASSROOM LIVE

\$5,895 CAD

5 Day

Classroom Live Outline

- Describing the Troubleshooting Process
- Understanding CLI Troubleshooting Tools
 - ∏ Ping, Pong, and Traceroute
 - Debugging, Event History, and System Monitoring

 - Logging
 - ☐ Cisco Generic Online Diagnostics
 - SNMP, Cisco EEM, and RMON
- Troubleshooting VLANs and PVLANs
- Troubleshooting Port Channels and Virtual Port Channels
 - □ Port Channel Overview
- Troubleshooting Cisco OTV

 - M HSRP Isolation Between Data Centers Using Cisco OTV
- Troubleshooting VXLAN

- ∇XLAN Troubleshooting
- Troubleshooting Routing and High-Availability Protocols
- Troubleshooting Platform-Specific Issues
- Troubleshooting Fibre Channel Interfaces
 - ∏ Fibre Channel Overview
- Troubleshooting Fibre Channel Fabric Services
- Troubleshooting NPV Mode
- Troubleshooting Cisco UCS Architecture and Initialization

- Troubleshooting Cisco UCS Configuration
- Troubleshooting Cisco UCS B-Series Servers
- Troubleshooting Cisco UCS B-Series LAN and SAN Connectivity

 - □ Use SPAN for Troubleshooting
- Troubleshooting Cisco UCS C-Series Servers

 - ▼ Troubleshoot the Cisco UCS C-Series VIC Module and Connectivity to Cisco IMC
- Troubleshooting Cisco UCS C-Series and Cisco UCS Manager Integration
- Exploring the Tools and Methodologies for Troubleshooting Cisco ACI

 - Atomic Counters, Faults, and Health Scores

 - ∏ Packet Flow Through Cisco ACI Fabric

- Troubleshoot Automation and Scripting Tools
- Troubleshooting Programmability

Classroom Live Labs

- Document the Network Baseline
- Troubleshoot Rapid PVST+
- Troubleshoot LACP
- Troubleshoot vPC
- Troubleshoot OTV
- Troubleshoot VXLAN
- Troubleshoot OSPF
- Troubleshoot FHRP
- Troubleshoot Cisco Fabric Services
- Troubleshoot VRF
- Troubleshoot Cisco FEX
- Troubleshoot Fibre Channel Interfaces
- Troubleshoot Fibre Channel VSANs, Zones, and Domain Services
- Troubleshoot NPV Mode
- Troubleshoot FCoE
- Troubleshoot DCB
- Troubleshoot Cisco UCS Management and Service Profile Deployment
- Troubleshoot Cisco UCS C-Series Server LAN Connectivity
- Troubleshoot Cisco UCS C-Series Server Boot from the Fibre Channel LUN
- Troubleshoot Cisco UCS C-Series Server iSCSI Boot
- Troubleshoot Cisco UCS C-Series Server Management Connectivity
- Troubleshoot Bare-Metal Hosts Connectivity Through Cisco ACI
- Troubleshoot Cisco ACI Integration with VMware vCenter
- Troubleshoot Contracts in Cisco ACI
- Troubleshoot Cisco ACI External Layer 3 Connectivity
- Troubleshoot Cisco ACI External Layer 2 Connectivity



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VIRTUAL CLASSROOM LIVE

\$5,895 CAD

5 Day

Virtual Classroom Live Outline

- Describing the Troubleshooting Process

 - M Narrow Down the Cause of the Problem
- Understanding CLI Troubleshooting Tools
 - ∏ Ping, Pong, and Traceroute
 - Debugging, Event History, and System Monitoring
 - SPAN and Encapsulated Remote SPAN
 - Ethanalyzer and Data Plane Sampling Capture
 - Logging

 - SNMP, Cisco EEM, and RMON
- Troubleshooting VLANs and PVLANs

 - Name
 VLANs and SVIs on Cisco Nexus Series Switches
 - $\overline{\mathbb{N}}$ Troubleshoot VLANs, PVLANs, and SVIs
- Troubleshooting Port Channels and Virtual Port Channels
 - □ Port Channel Overview

 - □ Common vPC Issues
- Troubleshooting Cisco OTV

 - M HSRP Isolation Between Data Centers Using Cisco OTV
- Troubleshooting VXLAN

- ∇XLAN Troubleshooting
- Troubleshooting Routing and High-Availability Protocols
- Troubleshooting Platform-Specific Issues
- Troubleshooting Fibre Channel Interfaces
 - ∏ Fibre Channel Overview
- Troubleshooting Fibre Channel Fabric Services
- Troubleshooting NPV Mode
- Troubleshooting Cisco UCS Architecture and Initialization

- Troubleshooting Cisco UCS Configuration
- Troubleshooting Cisco UCS B-Series Servers
- Troubleshooting Cisco UCS B-Series LAN and SAN Connectivity

 - □ Use SPAN for Troubleshooting
- Troubleshooting Cisco UCS C-Series Servers

 - ▼ Troubleshoot the Cisco UCS C-Series VIC Module and Connectivity to Cisco IMC
- Troubleshooting Cisco UCS C-Series and Cisco UCS Manager Integration
- Exploring the Tools and Methodologies for Troubleshooting Cisco ACI

 - Atomic Counters, Faults, and Health Scores

 - ∏ Packet Flow Through Cisco ACI Fabric

- Troubleshoot Automation and Scripting Tools
- Troubleshooting Programmability

Virtual Classroom Live Labs

- Document the Network Baseline
- Troubleshoot Rapid PVST+
- Troubleshoot LACP
- Troubleshoot vPC
- Troubleshoot OTV
- Troubleshoot VXLAN
- Troubleshoot OSPF
- Troubleshoot FHRP
- Troubleshoot Cisco Fabric Services
- Troubleshoot VRF
- Troubleshoot Cisco FEX
- Troubleshoot Fibre Channel Interfaces
- Troubleshoot Fibre Channel VSANs, Zones, and Domain Services
- Troubleshoot NPV Mode
- Troubleshoot FCoE
- Troubleshoot DCB
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- Troubleshoot Cisco UCS C-Series Server LAN Connectivity
- Troubleshoot Cisco UCS C-Series Server Boot from the Fibre Channel LUN
- Troubleshoot Cisco UCS C-Series Server iSCSI Boot
- Troubleshoot Cisco UCS C-Series Server Management Connectivity
- Troubleshoot Bare-Metal Hosts Connectivity Through Cisco ACI
- Troubleshoot Cisco ACI Integration with VMware vCenter
- Troubleshoot Contracts in Cisco ACI
- Troubleshoot Cisco ACI External Layer 3 Connectivity
- Troubleshoot Cisco ACI External Layer 2 Connectivity

Jan 5 - 9, 2026 | 8:30 AM - 4:30 PM EST

Mar 9 - 13. 2026 | 8:30 AM - 4:30 PM EDT

May 11 - 15, 2026 | 8:30 AM - 4:30 PM EDT

Jul 20 - 24, 2026 | 8:30 AM - 4:30 PM EDT



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ON-DEMAND

\$1,998 CAD

On-Demand Outline

- Describing the Troubleshooting Process

 - Narrow Down the Cause of the Problem
- Understanding CLI Troubleshooting Tools
 - Ping, Pong, and Traceroute
 - Debugging, Event History, and System Monitoring
 - SPAN and Encapsulated Remote SPAN

 - Logging

 - SNMP, Cisco EEM, and RMON
- Troubleshooting VLANs and PVLANs

 - ▼ VLANs and SVIs on Cisco Nexus Series Switches
 - $\overline{\mathbb{N}}$ Troubleshoot VLANs, PVLANs, and SVIs
- Troubleshooting Port Channels and Virtual Port Channels
 - □ Port Channel Overview
- Troubleshooting Cisco OTV

 - M HSRP Isolation Between Data Centers Using Cisco OTV
- Troubleshooting VXLAN

- Troubleshooting Routing and High-Availability Protocols
- Troubleshooting Platform-Specific Issues
- Troubleshooting Fibre Channel Interfaces
 - ∏ Fibre Channel Overview
- Troubleshooting Fibre Channel Fabric Services
- Troubleshooting NPV Mode
- Troubleshooting Cisco UCS Architecture and Initialization

- Troubleshooting Cisco UCS Configuration
- Troubleshooting Cisco UCS B-Series Servers
- Troubleshooting Cisco UCS B-Series LAN and SAN Connectivity

 - □ Use SPAN for Troubleshooting
- Troubleshooting Cisco UCS C-Series Servers

 - ▼ Troubleshoot the Cisco UCS C-Series VIC Module and Connectivity to Cisco IMC
- Troubleshooting Cisco UCS C-Series and Cisco UCS Manager Integration
- Exploring the Tools and Methodologies for Troubleshooting Cisco ACI

 - Atomic Counters, Faults, and Health Scores

 - ∏ Packet Flow Through Cisco ACI Fabric

- Troubleshoot Automation and Scripting Tools
- Troubleshooting Programmability



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PRIVATE GROUP TRAINING

5 Day

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