

Troubleshooting Cisco Data Center Infrastructure (DCIT) v7.0

What you'll learn

The Troubleshooting Cisco Data Center Infrastructure (DCIT) v7.0 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, Cisco ACI, and more. This training earns you 50 Continuing Education (CE) credits towards recertification.

This training helps prepare you to take the exam:

300-615 Troubleshooting Cisco Data Center Infrastructure (DCIT)

How you'll benefit

This training 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

What to expect in the exam

The 300-615 DCIT exam certifies your knowledge of troubleshooting a data center infrastructure including network, compute platforms, storage network, automation, management, and operations.



After you pass 300-615 DCIT, you earn the Cisco Certified Specialist - Data Center Operations certification and you satisfy the concentration exam requirement for new CCNP Data Center certification.

Who should enroll

Network designers

Network administrators

Network engineers

System engineers

Data center engineers

Consulting systems engineers

Technical solutions architects

Server administrators

Network managers

Cisco integrators and partners

Technology areas

Data center

Training overview

Objectives

After taking this training, you should be able to:

Describe how to troubleshoot the data center network, 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; Overlay Transport Virtualization (OTV); and Virtual Extensible LAN (VXLAN)

Describe troubleshooting of routing protocols such as Open Shortest Path First (OSPF), Enhanced Interior Gateway Routing Protocol (EIGRP), Protocol-Independent Multicast (PIM), and 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 over Ethernet (FCoE) and FCoE Initialization Protocol (FIP), including FCoE performance

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, Cisco UCS B-Series Blade Server operation and troubleshoot related issues

Describe 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 LAN and SAN connectivity, avoiding issues with the VIC, troubleshooting connectivity issues and Cisco UCS C-Series server integration with Cisco UCS Manager

Identify the tools, protocols, and methods to effectively troubleshoot Cisco ACI

Describe how to troubleshoot automation, scripting tools, and programmability

Prerequisites

To fully benefit from this training, you should have the following knowledge and skills:

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

The following Cisco trainings may help you meet these prerequisites:

Implementing and Administering Cisco Networking Technologies (CCNA®)

Understanding Cisco Data Center Foundations (DCFNDU)

Implementing and Operating Cisco Data Center Core Technologies (DCCOR)



Introducing Cisco NX-OS Switches and Fabrics in the Data Center (DCINX)

Configuring Cisco NX-OS Switches and Fabrics in the Data Center (DCCNX)

Introducing Cisco Unified Computing System (DCIUCS)

Configuring Cisco Unified Computing System (DCCUCS)

Lab outline

Designing Enterprise Connectivity

Designing an Enterprise Network with BGP Internet Connectivity

Designing an Enterprise Campus LAN

Designing Resilient Enterprise WAN

Designing QoS in an Enterprise Network

Designing an Enterprise IPv6 Network