COMPUTER LEARNING CENTRE
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CISCO PARTNER Learning

Training overview

Implementing and Operating Cisco Data Center Core Technologies (DCCOR)

Description

The **Implementing and Operating Cisco Data Center Core Technologies (DCCOR)** training teaches you to implement data center local area networks (LANs) and storage area networks (SANs) and compute using Cisco Nexus Switches, Cisco MDS Switches, Cisco Unified Computing System (UCS) B-Series Blade Servers, and Cisco UCS C-Series Rack Servers. You will also learn the essentials of automation and security in data centers. The training provides rich, hands-on experience with deploying, securing, operating, and maintaining Cisco data center networking, storage, and computing.

This training prepares you for 350-601 DCCOR v1.2 exam. If passed, you earn the Cisco Certified Specialist – Data Center Core certification and satisfy the core exam requirements for the Cisco Certified Network Professional (CCNP) Data Center and Cisco Certified Internetwork Expert (CCIE) Data Center certifications. This training also earns you 64 Continuing Education (CE) credits toward recertification.

How you'll benefit

Thistraining willhelpyou:

- Gain experience implementing, securing and automating network, compute, and storage infrastructure
- 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 and expert-level job roles in the high-demand area of enterprise-class data center environments
- Prepare for the 350-601 DCCOR v1.2 exam
- Earn 64 CE credits toward recertification

Who should enroll

- Network Designers
- Network Administrators

- Network Engineers
- Systems Engineers
- Data Center Engineers
- Consulting Systems Engineers
- Technical Solutions Architects
- Cisco Integrators and Partners
- Field Engineers
- Server Administrators Network
- Managers
- Storage Administrators
- Program Managers
- Project Managers

Technology areas

- Data Center

Objectives

- Implement spanning tree protocol, port channels, and virtual port channels in the data center
- Implement first-hop redundancy protocols in the data center using Hot Standby Router Protocol (HSRP), Virtual Router Redundancy Protocol (VRRP), and Gateway Load Balancing Protocol (GLBP)
- Implement routing in the data center by using Open Shortest Path First (OSPF)v2, OSPFv3, and Border Gateway Protocol (BGP)
- Implement multicast functionality in the data center on the Cisco Nexus switches
- Implement overlay networks in the data center by using Virtual Extensible LAN (VXLAN)
- Implement network infrastructure security features on the Cisco Nexus switches
- Understand the architecture and features of high-performance Ethernet fabrics
- Introduce high-level Cisco Application Centric Infrastructure (ACI) concepts and describe various fabric discovery parameters
- Describe Cisco ACI building blocks and Virtual Machine Manager (VMM) domain integration
- Describe packet flow for various traffic types (unicast, multicast, and broadcast) in the data center
- Describe Cisco Cloud Service and deployment models
- Describe Cisco ACI fabric setup
- Implement network configuration management, describe software updates and their impacts, and implement network infrastructure monitoring
- Describe Cisco network assurance concepts such as Cisco Streaming Telemetry
- Implement Fibre Channel fabric
- Implement storage infrastructure services in the data center such as distributed device aliases, zoning, N Port Virtualization (NPV), and Fibre Channel over IP (FCIP)
- Implement Fibre Channel over Ethernet (FCoE) unified fabric
- Implement storage infrastructure security features in the data center
- Describe storage infrastructure software updates and their impacts, and implement infrastructure monitoring
- Describe Cisco UCS Server form factors
- Implement Cisco UCS Fabric Interconnect and establish network connectivity for the Cisco UCS B-Series Blade Servers and Cisco UCS C-Series Rack Servers

- Implement Cisco Unified Computing Server abstraction
- Implement SAN connectivity for Cisco UCS
- Implement Cisco UCS security features in the data center
- Implement Cisco UCS configuration management, describe software updates and their impacts, and implement infrastructure monitoring
- Implement Cisco automation and scripting tools in the data center
- Describe and evaluate the Cisco integration with automation and orchestration software platforms, such as Ansible, Puppet, and Python
- Describe and evaluate Cisco data center automation and orchestration technologies

Prerequisites

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

- Familiarity with Ethernet and TCP/IP networking
- Familiarity with SANs
- Familiarity with Fibre Channel protocol
- Identify products in the Cisco Data Center Nexus and Cisco MDS families
- Understanding of Cisco Enterprise Data Center architecture
- Understanding of server system design and architecture
- Familiarity with hypervisor technologies (such as VMware)

These skills can be found in the following Cisco Learning Offerings:

- Implementing and Administering Cisco Solutions (CCNA)
- Understanding Cisco Data Center Foundations (DCFNDU)

Outline

- Implementing Data Center Switching Protocols
- Implementing First-Hop Redundancy Protocols
- Implementing Routing in Data Center
- Implementing Multicast in Data Center
- Implementing Data Center Overlay Protocols
- Implementing Network Infrastructure Security
- High-Throughput Converged Fabrics
- Describing Cisco Application-Centric Infrastructure
- Describing Cisco ACI Building Blocks and VMM Domain Integration
- Describing Packet Flow in Data Center Network
- Describing Cisco Cloud Service and Deployment Models
- Describing Data Center Network Infrastructure Management
- Explaining Cisco Network Assurance Concepts
- Implementing Fibre Channel Fabric
- Implementing Storage Infrastructure Services
- Implementing FCoE Unified Fabric
- Implementing Storage Infrastructure Security
- Describing Data Center Storage Infrastructure Maintenance and Operations

- Describing Cisco UCS Server Form Factors
- Implementing Cisco Unified Computing Network Connectivity
- Implementing Cisco Unified Computing Server Abstraction
- Implementing Cisco Unified Computing SAN Connectivity
- Implementing Cisco Unified Computing System Security
- Describing Data Center Unified Computing Management, Maintenance, and Operations
- Implementing Cisco Data Center Automation and Scripting Tools
- Describing Cisco Integration with Automation and Orchestration Software Platforms
- Describing Cisco Data Center Automation and Orchestration Technologies

Lab Outline

- Configure VXLAN
- Explore the Cisco ACI Fabric
- Implement Cisco ACI Access Policies and Out-of-Band Management
- Implement Cisco ACI Tenant Policies
- Integrate Cisco ACI with VMware
- Configure Fibre Channel
- Configure Device Aliases
- Configure Zoning
- Configure NPV
- Provision Cisco UCS Fabric Interconnect
- Configure Server and Uplink Ports
- Configure VLANs
- Configure Cisco UCS Server Profile Using Hardware Identities
- Configure Basic Identity Pools
- Configure a Cisco UCS Service Profile Using Pools
- Configure an iSCSI Service Profile
- Configure Cisco UCS Manager to Authenticate Users with Microsoft Active Directory
- Configure Cisco Nexus Switches with Ansible
- Program a Cisco Nexus Switch with Python

What to expect on the exam

Implementing Cisco Data Center Core Technologies (350-601 DCCOR) v1.2 is a 120-minute associated with the Cisco Certified Specialist – Data Center Core certification and satisfies the core exam requirements for the CCNP Data Center and CCIE Data Center certifications.

This exam tests your knowledge of implementing core data center technologies, including:

- Network
- Compute
- Storage network
- Automation
- Security