IMPLEMENTING AND OPERATING CISCO DATA CENTER CORE TECHNOLOGIES (DCCOR) V1.1

The Implementing and Operating Cisco Data Center Core Technologies (DCCOR) v1.1 course helps you prepare for the Cisco® CCNP® Data Center and CCIE® Data Center certifications for advanced-level data center roles. In this course, you will master the skills and technologies you need to implement data center compute, LAN and SAN infrastructure. You will also learn the essentials of automation and security in data centers. You will gain hands-on experience deploying, securing, operating, and maintaining Cisco data center infrastructure including: Cisco MDS Switches and Cisco Nexus Switches; Cisco Unified Computing System™ (Cisco UCS®) B-Series Blade Servers, and Cisco UCS C-Series Rack Servers.

This course, including the self-paced material prepares you to take the 350-601 Implementing Cisco Data Center Core Technologies (DCCOR) exam.

How you'll benefit

This course will help you:

- 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
- Earn 64 CE credits toward recertification

Why Attend with Current Technologies CLC

- Our Instructors are the top 10% rated by Cisco
- Our Lab has a dedicated 1 Gig Fiber Connection for our Labs
- Our Labs run up to Date Code for all our courses

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Objective

Upon completing this course, the student will be able to meet these objectives:

- Implement routing and switching protocols in Data Center environment

- Implement overlay networks in data center

- Introduce high-level Cisco Application Centric Infrastructure (Cisco ACI™) concepts and Cisco Virtual Machine manager (VMM) domain integration

- Describe Cisco Cloud Service and deployment models

- Implement Fibre Channel fabric

- Implement Fibre Channel over Ethernet (FCoE) unified fabric

- Implement security features in data center

- Implement software management and infrastructure monitoring

- Implement Cisco UCS Fabric Interconnect and Server abstraction

- Implement SAN connectivity for Cisco Unified Computing System™ (Cisco UCS®)

- Describe Cisco HyperFlex™ infrastructure concepts and benefits

- Implement Cisco automation and scripting tools in data center

- Evaluate automation and orchestration technologies

Course Duration
5 day
Course Price
$4,895.00
Methods of Delivery
• Instructor Led
• Virtual ILT
Certification Exam
350-601
Cisco CE Credits
64

Who Should Attend

The primary audience for this course is as follows:

- Network Designers
- Server Administrators
- Network Administrators
- Systems Engineers
- Technical Solutions Architects
- Cisco Integrators and Partners

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Prerequisites

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

- 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 Cisco courses are recommended to help you meet these prerequisites:

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

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Course Outline

Module 1: Implementing Data Center Switching Protocols*

- Spanning Tree Protocol
- Port Channels Overview

Module 2: Implementing First-Hop Redundancy Protocols*

- Hot Standby Router Protocol (HSRP) Overview
- Virtual Router Redundancy Protocol (VRRP) Overview

Module 3: Implementing Routing in Data Center*

- Open Shortest Path First (OSPF) v2 and Open Settlement Protocol (OSP) v3
- Border Gateway Protocol

Module 4: Implementing Multicast in Data Center*

- IP Multicast in Data Center Networks
- Internet Group Management Protocol (IGMP) and Multicast Listener Discovery (MLD)

Module 5: Implementing Data Center Overlay Protocols

- Cisco Overlay Transport Virtualization
- Virtual Extensible LAN

Module 6: Implementing Network Infrastructure Security*

- User Accounts and Role Based Access Control (RBAC)
- Authentication, Authorization, and Accounting (AAA) and SSH on Cisco NX-OS

Module 7: Describing Cisco Application-Centric Infrastructure

- Cisco ACI Overview, Initialization, and Discovery
- Cisco ACI Management

Module 8: Describing Cisco ACI Building Blocks and VMM Domain Integration

- Tenant-Based Components
- Cisco ACI Endpoints and Endpoint Groups (EPG)

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Module 9: Describing Packet Flow in Data Center Network*

- Data Center Traffic Flows
- Packet Flow in Cisco Nexus Switches

Module 10: Describing Cisco Cloud Service and Deployment Models

- Cloud Architectures
- Cloud Deployment Models

Module 11: Describing Data Center Network Infrastructure Management, Maintenance, and Operations*

- Time Synchronization
- Network Configuration Management

Module 12: Explaining Cisco Network Assurance Concepts*

- Need for Network Assurance
- Cisco Streaming Telemetry Overview

Module 13: Implementing Fibre Channel Fabric

- Fibre Channel Basics
- Virtual Storage Area Network (VSAN) Overview

Module 14: Implementing Storage Infrastructure Services

- Distributed Device Aliases
- Zoning

Module 15: Implementing FCoE Unified Fabric

- Fibre Channel over Ethernet
- Describing FCoE

Module 16: Implementing Storage Infrastructure Security*

- User Accounts and RBAC
- Authentication, Authorization, and Accounting

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Module 17: Describing Data Center Storage Infrastructure Maintenance and Operations*

- Time Synchronization
- Software Installation and Upgrade

Module 18: Describing Cisco UCS Server Form Factors*

- Cisco UCS B-Series Blade Servers
- Cisco UCS C-Series Rack Servers

Module 19: Implementing Cisco Unified Computing Network Connectivity

- Cisco UCS Fabric Interconnect
- Cisco UCS B-Series Connectivity

Module 20: Implementing Cisco Unified Computing Server Abstraction

- Identity Abstraction
- Service Profile Templates

Module 21: Implementing Cisco Unified Computing SAN Connectivity

- iSCSI Overview
- Fibre Channel Overview

Module 22: Implementing Unified Computing Security

- User Accounts and RBAC
- Options for Authentication

Module 23: Introducing Cisco HyperFlex Systems*

- Hyperconverged and Integrated Systems Overview
- Cisco HyperFlex Solution

Module 24: Describing Data Center Unified Computing Management, Maintenance, and Operations*

- Compute Configuration Management
- Software Updates

Module 25: Implementing Cisco Data Center Automation and Scripting Tools*

- Cisco NX-OS Programmability

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- Scheduler Overview

Module 26: Describing Cisco Integration with Automation and Orchestration Software Platforms
- Cisco and Ansible Integration Overview
- Cisco and Puppet Integration Overview

Module 27: Describing Cisco Data Center Automation and Orchestration Technologies*
- Power On Auto Provisioning
- Cisco Data Center Network Manager Overview

* This section is self-study material that can be done at your own pace after the instructor-led portion of the course.

LAB OUTLINE
- Configure Virtual Extensible LAN (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 Cluster
- Configure Server and Uplink Ports
- Configure VLANs
- Configure a Cisco UCS Server Profile Using Hardware Identities
- Configure Basic Identity Pools
- Configure a Cisco UCS Service Profile Using Pools
- Configure an Internet Small Computer Systems Interface (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
- Automate Cisco Application-Centric Infrastructure Configuration