

## Implementing and Operating Cisco Data Center Core Technologies (DCCOR) v1.3

Course Acronym: DCCOR  
Certification: CCNP Data Center  
Course Length : 5 days

### Course Content:

The Implementing and Operating Cisco Data Center Core Technologies (DCCOR) 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 also earns you 64 Continuing Education (CE) credits towards recertification.

### 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)

This Cisco course is recommended to help you meet these prerequisites:

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

### Target Audience:

- Network designers
- Network administrators
- Network engineers
- Systems engineers
- Data center engineers
- Consulting systems engineers
- Technical solutions architects
- Field engineers
- Cisco integrators and partners
- Server administrator
- Network manager

### Course Objectives:

After taking this course, you should be able to:

- 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 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
- 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, Maintenance, and Operations
- 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 Unified Computing Security
- Introducing Cisco HyperFlex Systems
- 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

#### Labs 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