

CCNP Data Center Professional (350-601 DCCOR)

Duration: 50 Hours

Certification Level: Professional

Course Overview

The **CCNP Data Center Professional (350-601 DCCOR)** certification is designed for IT professionals looking to validate their skills in managing and optimizing complex data center infrastructures. This course prepares you for the **Cisco 350-601 DCCOR exam**, covering topics such as data center networking, storage, automation, and security. The CCNP Data Center certification is ideal for those looking to advance their careers in data center design, implementation, and troubleshooting.

Course Objectives

Upon completing this course, participants will:

- Understand data center networking, storage, and virtualization concepts
 - Learn to configure and troubleshoot data center environments
 - Implement automation strategies for data center operations
 - Develop a strong understanding of data center security
 - Prepare for the **Cisco 350-601 DCCOR** certification exam
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Course Modules

Module 1: Data Center Architecture (8 Hours)

- Introduction to data center design principles
- Core and access layer design
- Cisco Unified Computing System (UCS) architecture
- Data center topologies and Cisco ACI (Application Centric Infrastructure)
- Network Fabric and spine-leaf design models

Module 2: Data Center Networking (8 Hours)

- Layer 2 and Layer 3 networking in data centers
- Ethernet and Fibre Channel networking
- Software-Defined Networking (SDN) in the data center
- Cisco Nexus series switches and their configurations
- Implementing VXLAN (Virtual Extensible LAN) and EVPN (Ethernet VPN)

Module 3: Data Center Storage Networking (8 Hours)

- Introduction to storage area networks (SAN)
- Fibre Channel, FCoE (Fibre Channel over Ethernet), and iSCSI
- Storage virtualization concepts
- SAN design and implementation
- Managing and configuring storage solutions in the data center

Module 4: Data Center Automation (8 Hours)

- Introduction to data center automation and orchestration
- Automation tools: Ansible, Puppet, and Chef for data centers
- Cisco Data Center Network Manager (DCNM)
- Using Cisco ACI for automation and management
- Implementing network automation in the data center environment

Module 5: Data Center Security (6 Hours)

- Data center security fundamentals and concepts
- Secure access control and network segmentation
- Implementing role-based access control (RBAC)
- Data center firewalls and intrusion prevention systems (IPS)
- Best practices for securing data center infrastructure

Module 6: Virtualization and Cloud in Data Centers (6 Hours)

- Virtualization technologies in the data center
- VMware vSphere and Cisco UCS integration
- Cloud computing and hybrid cloud architectures
- Implementing multi-tenant data centers
- Managing workloads in virtualized and cloud environments

Module 7: Troubleshooting and Maintenance (6 Hours)

- Troubleshooting data center network issues
- Monitoring and diagnosing data center performance
- Using Cisco tools for troubleshooting (e.g., Cisco Prime, DCNM)
- Managing configurations and firmware updates
- Best practices for ongoing data center maintenance

Target Audience

This course is ideal for:

- Data center engineers and administrators
- Network engineers and architects
- IT professionals looking to specialize in data center technologies
- Those aiming to take the **Cisco 350-601 DCCOR exam**