

DCII – Implementing Cisco Data Center Infrastructure

Duration: On-Demand

Overview:

Implementing Cisco Data Center Infrastructure (DCII) v6.2 is a professional-level self-study technical course designed to help students prepare for the CCNP Data Center certification and for professional-level data center roles. The focus of this skills-building course is implementation of LANs, SANs, and data center unified fabric using Cisco MDS switches, Cisco Nexus switches, and Cisco Nexus 2000 series Fabric Extenders (FEXs). The course provides rich hands-on experience with implementing Cisco Data Center Infrastructure. You'll master the professional-level skills and technologies needed to implement Cisco Data center infrastructure, including key protocols, routing and switching protocols, maintenance, management, operations, security, and storage.

Audience:

IT professionals with five to eight years' experience in these Roles

- Data Center Administrator
- Data Center Engineer
- Network Administrator
- Network Engineer
- System Administrator
- Systems Engineer
- Network Designer
- Consulting Systems Engineer
- Technical Solutions Architect
- Cisco Integrator or partner

Module 1: Data Center Protocols

Lessons:

- Configuring Spanning Tree Protocol
- Configuring Port Channels
- Configuring Fabric Extenders
- Implementing Cisco Fabric Path
- Understanding Overlay Transport Virtualisation
- Implementing VXLAN
- Implementing LISP

Module 2: Layer 3 Switching Features in the Data Center

Lessons:

- Configuring First-Hop Redundancy
- Configuring Routing
- Configuring IP Multicast

Module 3: Data Center Infrastructure Security

Lessons:

- Configuring User Management
- Configuring System Security Features

Module 4: Data Center Infrastructure Storage Fabric

Lessons:

- Basic Fibre Channel Configuration
- Managing Domains
- Implementing Port Security and Fabric Binding

Module 5: FCoE Unified Fabric

Lessons:

- Describing FCoE
- Implementing FCoE

Module 6: Data Center Infrastructure Storage Services

Lessons:

- Configuring Distributed Device Aliases
- Implementing Zoning
- Configuring NPIV and NPV
- Configuring Fibre Channel over IP

Pre-requisites:

Before taking this course, you should be able to:

- Describe data center networking concepts
- Describe data center storage concepts
- Describe data center virtualisation
- Describe the Cisco Unified Computing System
- Describe data center automation and orchestration focusing on Cisco Application Centric Infrastructure (Cisco ACI) and Cisco UCS Director
- Identify products in the Cisco Nexus and MDS families
- Describe network fundamentals and build simple LANs, including switching and routing

To fully benefit from this course, you should have complete the following courses or obtained the equivalent level of knowledge:

- Introducing Cisco Data Center Networking (DCICN)
- Introducing Cisco Data Center Technologies (DCICT)
- Interconnecting Cisco Networking Devices: Accelerated (CCNAX), or Interconnecting Cisco Networking Devices, part 1 (ICND1), and Interconnecting Cisco Networking Devices, Part 2 (ICND2)

Course Completion:

- Configure Rapid PVST+, MST and available STP options
- Configure FEX in static, dynamic and enhanced vPC setup
- Configure port channels and virtual port channels
- Implement Fabric Path and describe DFA
- Configure OTV
- Configure VXLAN
- Describe LISP
- Configure first hop redundancy protocols
- Configure routing on a Cisco Nexus switch
- Implement multicast functionality in a Cisco Data Center network architecture

Module 7: Data Center Infrastructure Maintenance, Management, and Operations

Lessons:

- Configuring System Management
- Configuring Infrastructure Monitoring

- Manage user accounts, SSH, and AAA on Cisco NX-OS
- Describe and configure system security features
- Perform basic fibre Channel configuration
- Manage FC domains
- Configure port security and fabric binding
- Describe FCoE
- Configure FCoE
- Describe and configure distributed device aliases
- Describe and configure zoning
- Configure NPIV and NPV
- Describe and configure FCIP
- Configure system management and infrastructure monitoring
- Configure infrastructure monitoring and programmability