

Designing Cisco Data Center Infrastructure (DCID)

Duration 5 Days

COURSE CONTENT

The course includes information on designing data centers with Cisco components and technologies. It covers network designs with virtualization, Layer 2 and Layer 3 technologies and routing protocols, and data center interconnect design options. Also covered are device virtualization technologies, including virtual switches, virtual routers, and virtual firewalls. Storage and SAN design is covered. Design practices for the Cisco Unified Computing System (UCS) solution based on Cisco UCS B-Series and C-Series servers and Cisco UCS Manager are covered. Network management technologies.

Upon completion of this course, you will be able to:

- Describe Layer 2 switching and Layer 3 forwarding in a data center
- Design vPC, Cisco FabricPath, OTV, and LISP in customer scenarios and describe management options in the LAN
- Describe hardware virtualization and FEX technologies, compare the Cisco Nexus 1000v with VM-FEX designs, discuss data center security threats and Cisco Virtual Application Container Services for IaaS, and describe management and automation options for the data center infrastructure
- Describe storage and RAID options, describe the Fibre Channel concept and architecture, and design Fibre Channel and FCoE networks, along with management options
- Describe the UCS C-Series, M-Series, and B-Series servers, with connectivity and adapter options. Compare the EHV and NPV network operations modes. Explain and distinguish among the different system integrated stack solutions and the management options for the UCS domains
- Design the resource parameters for a UCS domain, starting with the setup and IP concepts, RBAC, and integration with authentication servers. Design the resource pools and policies used in UCS service profiles and templates

COURSE OUTLINE

- **Module 1:** Data Center Network Connectivity Design
- **Module 2:** Data Center Infrastructure Design
- **Module 3:** Data Center Storage Network Design
- **Module 4:** Data Center Compute Connectivity Design
- **Module 5:** Data Center Compute Resource Parameters Design

PREREQUISITES

It is recommended that a learner has the following knowledge and skills before attending this course:

- Implement data center networking (LAN and SAN)
- Describe data center storage
- Implement data center virtualization
- Implement Cisco Unified Computing System
- Implement data center automation and orchestration with the focus on Cisco ACI and UCS Director
- Describe products in the Cisco Data Center Nexus and MDS families

Who Should Attend

- Channel Partners
- Customers
- Employees
- Entry-level to experienced Network Administrator
- Senior Network Engineer
- Presales Engineer
- Design Engineer
- Data Center Administrator
- Senior Systems Engineer
- Senior Technical Solutions Architect