Designing Cisco Data Center Infrastructure (DCID) 8.0

Duration: 40 HRS

Description

The **Designing Cisco Data Center Infrastructure (DCID)** training focuses on data center design based on Cisco solutions and technologies. The training includes theoretical content and design-oriented case studies that are in the form of activities. The training 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 such as virtualized network devices with virtual appliances, including virtual switches, virtual routers, and virtual firewalls. Storage and SAN design is covered, including an explanation of Fibre Channel networks. Design practices for the Cisco Unified Computing System (UCS) solution based on Cisco UCS B-Series and C-Series servers, Cisco UCS-X are covered. Management and orchestration topics feature Cisco UCS Manager, Nexus Dashboard Fabric Controller (NDFC), and Cisco Intersight, with additional emphasis on automation solutions such as programmability, Ansible, and Terraform. The training also addresses the integration of artificial intelligence, real-world use cases, and the design of AI-ready infrastructure.

How You'll Benefit

This training will help you:

- Make design choices for optimal data center infrastructure performance, virtualization, security, and automation
- Gain the practical and theoretical knowledge necessary to design a scalable, reliable, and intelligent data center based on Cisco technologies
- Qualify for professional-level job roles in the high-demand area of enterprise-class data center environments
- Prepare for the 300-610 DCID v1.2 exam
- Earn 40 CE credits toward recertification

Who Should Enroll

- Network Designers
- Network Administrators
- Network Engineers
- Systems Engineers
- Data Center Engineers
- Consulting Systems Engineers
- Technical Solutions Architects

Course Prerequisites

There are no prerequisites for this training. However, the knowledge and skills you are recommended to have before attending this training are:

- Implement data center networking, including Local Area Network (LAN) and Storage Area Network (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 Application Centric Infrastructure (ACI), Cisco Nexus Dashboard, and Cisco Intersight
- Describe products in the Cisco Data Center Nexus and Multilayer Director Switch (MDS) families

These skills can be found in the following Cisco Learning Offerings:

- [Implementing and Administering Cisco Solutions (CCNA)](#)
- [Implementing Cisco Data Center Core Technologies (DCCOR)](#)

Course Outline

- Data Center Topologies

- Layer 1 Connectivity

- Data Center Redundancy

- Layer 2 Connectivity

- Layer 3 Connectivity

- Virtual Resources

- Overlay Networks

- Fabric Interconnect Connectivity

- Cisco Unified Computing System Server Options

- Cisco UCS Network Design

- Cisco Unified Computing System Server Design

- Cisco Unified Computing System Configuration

- Storage Options and Design

- Fibre Channel Networks

- Storage Virtualization

- Fibre Channel Topologies

- Hyperconverged and Integrated Systems

- Basic Data Center Security

- Advanced Data Center Security

- Storage Security

- Cisco Unified Computing System Role-Based Access Control

- Fundamentals of AI

- Generative AI

- AI Use Cases

- AI-Enabling Hardware

- Key Network Challenges and Requirements for AI Workloads

- Application-Level Protocols

- AI Transport

- AI Compute Resources

- AI Sustainability

- Network and License Management

- Compute Management and Orchestration

- Network Orchestration

- Data Center Programmability and Automation

- Infrastructure as Code Automation

Lab Outline

There are no labs associated with this course