# E-Learning - Designing Cisco Data Center Infrastructure

**Cisco - On Demand E-Learning**

The Designing Cisco Data Center Infrastructure (DCID) course teaches design and deployment options focused on Cisco data center solutions and technologies across network, compute, virtualization, storage area networks, automation, and security.

You will learn design practices for the Cisco Unified Computing System (Cisco UCS) solution based on Cisco UCS B-Series and C-Series servers, Cisco UCS Manager, and Cisco Unified Fabric. You will also gain design experience with network management technologies including Cisco UCS Manager, Cisco Data Center Network Manager (DCNM), and Cisco UCS Director. You can expect theoretical content as well as design-oriented case studies in the form of activities.

This course helps you prepare to take the exam, Designing Cisco Data Center Infrastructure (300-610 DCID), which leads to the new CCNP Data Center and the Cisco Certified Specialist - Data Center Design certifications.

**Access Duration: 180 days**

Continuing Education Credits: 40

## Purpose of the training

- Data center engineers
- Network designers
- Network administrators
- Network engineers

- Systems engineers
- Consulting systems engineers
- Technical solutions architects
- Server administrators
- Network managers
- Cisco integrators or partners

## Benefits of completing the training

This course will help you:

- Make design choices for optimal data center infrastructure performance, virtualization, security, and automation
- Master 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

## Exam description

Certification
Associated Certification: CCNP Data Center
Associated Exam: 300-610 DCID

## Expected Listener Preparation

Before taking this course, you should be able to:

- Implement data center networking [Local Area Network (LAN) and Storage Area Network (SAN)]
- Describe data center storage
- Implement data center virtualization
- Implement Cisco UCS
- Implement data center automation and orchestration with the focus on Cisco Application Centric Infrastructure (ACI) and Cisco UCS Director
- Describe products in the Cisco Data Center Nexus and Multilayer Director Switch (MDS) families

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

- Understanding Cisco Data Center Foundations (DCFNDU)
- Implementing and Administering Cisco Networking Technologies (CCNA)
- Implementing Cisco Data Center Core Technologies (DCCOR)

## Training Language

- Language: English
- Materials: English

## Training Includes

- Self-Paced Training
- Video Training

## Duration

1 days / 1 hours

## Training agenda

- Choose the appropriate components and design a scalable, reliable, and intelligent data center
- Design data center network connectivity, including Layer 2 switching and Layer 3 forwarding
- Design virtual port channel (vPC), Virtual Extensible LAN (VXLAN), and Cisco Overlay Transport Virtualization (OTV) in customer scenarios
- Describe management options in the LAN
- Describe hardware virtualization and Fabric Extender (FEX) technologies, including data center infrastructure management and automation options
- Design a data center storage network, including Redundant Array of Independent Disks (RAID) options, Hyperconvergence, Fibre Channel and Fibre Channel over Ethernet (FCoE)
- Describe the Cisco UCS C-Series and B-Series servers and distinguish among system-integrated stack solutions and management options for Cisco UCS domains
- Design authentication, authorization, and accounting (AAA), role-based access control (RBAC) and resource

parameters for a Cisco UCS domain, including resource pools and policies