



Platinum Learning Partner  
Business Learning Partner

# Designing Cisco Data Centre Infrastructure

## DCID: 350-610

## Course Overview

The Designing Cisco Data centre Infrastructure (DCID) v7.0 course helps you master design and deployment options focused on Cisco® data centre 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 centre 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 300-610 Designing Cisco Data centre Infrastructure (DCID) Exam

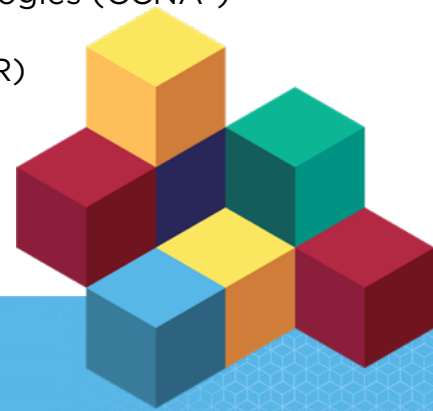
## Prerequisite Knowledge

To fully benefit from this course, you should have the following knowledge and skills:

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

These Cisco courses are recommended to help you meet these prerequisites:

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



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## Objectives

Upon completing this course, the learner will be able to meet these overall objectives:

- Describe the Layer 2 and Layer 3 forwarding options and protocols used in a data centre
- Describe the rack design options, traffic patterns, and data centre switching layer access, aggregation, and core
- Describe the Cisco Overlay Transport Virtualization (OTV) technology that is used to interconnect data centres
- Describe Locator/ID separation protocol
- Design a solution that uses Virtual Extensible LAN (VXLAN) for traffic forwarding
- Describe hardware redundancy options; how to virtualize the network, compute, and storage functions; and virtual networking in the data centre
- Describe solutions that use fabric extenders and compare Cisco Adapter Fabric Extender (FEX) with single root input/output virtualization (SR-IOV)
- Describe security threats and solutions in the data centre
- Describe advanced data centre security technologies and best practices
- Describe device management and orchestration in the data centre
- Describe the storage options for compute function and different Redundant Array of Independent Disks (RAID) levels from a high-availability and performance perspective
- Describe Fibre Channel concepts, topologies, architecture, and industry terms
- Describe Fibre Channel over Ethernet (FCoE)
- Describe security options in the storage network
- Describe management and automation options for storage networking infrastructure
- Describe Cisco UCS servers and use cases for various Cisco UCS platforms
- Explain the connectivity options for fabric interconnects for southbound and northbound connections
- Describe the hyperconverged solution and integrated systems
- Describe the systemwide parameters for setting up a Cisco UCS domain
- Describe role-based access control (RBAC) and integration with directory servers to control access rights on Cisco UCS Manager
- Describe the pools that may be used in service profiles or service profile templates on Cisco UCS Manager
- Describe the different policies in the service profile
- Describe the Ethernet and Fibre Channel interface policies and additional network technologies
- Describe the advantages of templates and the difference between initial and updated templates
- Describe data centre automation tools

