Designing Cisco Data Center Infrastructure

Duración: 5 Días   Código del Curso: DCID   Version: 7.1

Temario:

Designing Cisco Data Center Infrastructure (DCID) focuses on data center design based on Cisco solutions and technologies. Topics covered include network designs with virtualization technologies, Layer 2 and Layer 3 technologies and routing protocols and data center interconnect design options.
You'll 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, while gaining experience with network management technologies including Cisco UCS Manager, Cisco Nexus Dashboard Fabric Controller and Cisco UCS Director.

This course is worth 40 (CE) Continuing Education Credits

e-Learning

Interactive self-paced content that provides flexibility in terms of pace, place and time to suit individuals and organisations. These resources also consist of online books, educational podcasts and vodcasts, and video-based learning.

Dirigido a:

Engineers and Architects involved in the design of a Cisco Data Center or Cisco Data Center Solution.

Objetivos:

- **After completing this courses you should be able to:**

- Describe the Layer 2 and Layer 3 forwarding options and protocols used in a data center

- Describe the rack design options, traffic patterns, and data center switching layer access, aggregation, and core

- Describe Locator/ID separation protocol

- Design a solution that uses Virtual Extensible LAN (VXLAN) for traffic forwarding

- Describe the hardware redundancy options; how to virtualize the network, compute, and storage functions; and virtual networking in the data center

- 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 center

- Describe advanced data center security technologies and best practices

- Describe device management and orchestration in the data center

- Describe the storage options for the compute function and the different Redundant Array of Independent Disks (RAID) levels from a high-availability and performance perspective

- Describe Fibre Channel concepts and architecture

- Describe Fibre Channel over Ethernet (FCoE)

- Describe security options in the storage network

- Describe the management and automation options for the 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 center automation tools

■ Describe Fibre Channel topologies and industry terms

Prerequisitos:

Attendees should be able to:

■ Implement data center networking (LAN and SAN)
■ Describe data center storage
■ Implement data center virtualizations
■ Implement CiscoUnified Computing System (UCS)
■ Implement data Center automation and orchestration with the focus on Cisco ACI and Cisco UCS Director
■ Describe products in the Cisco Data Center and MDS Families
■ CCNA - Implementing and Administering Cisco Solutions
■ DCFNDU - Understanding Cisco Data Center Foundations
■ DCCOR - Implementing and Operating Cisco Data Center Core Technologies

Exámenes y certificación

Recommended as preparation for exam:

■ **300-610** - **DCID** - Designing Cisco Data Center Infrastructure This is one of the concentration exams for the CCNP Data Center Certification, to achieve the New CCNP Data Center Certification you will also need to take the **350-601** exam

Contenido:

Advanced Data Center Security

- Cisco TrustSec in Cisco Secure Enclaves Architecture
- Cisco TrustSec Operation
- Firewalling
- Positioning the Firewall Within Data Center Networks
- Cisco Firepower® Portfolio
- Firewall Virtualization
- Designing for Threat Mitigation

- Using Fabric Interconnect Interfaces
- VLANs and VSANs in a Cisco UCS Domain
- Southbound Connections
- Northbound Connections
- Disjoint Layer 2 Networks
- Fabric Interconnect High Availability and Redundancy

- Programmability Using Python
- Cisco Ansible Module
- Cisco Intersight Cloud Orchestration Overview

Practice Activities

- Design Virtual Port Channels
- Design First Hop Redundancy Protocol (FHRP)
- Design Routing Protocols
- Design Data Center Topology for a Customer
- Design Your VXLAN Network
- Create a Cisco FEX Design
- Design Management and Orchestration in a Cisco UCS Solution
- Design a Fibre Channel Network
- Design and Integrate an FCoE Solution
- Design a Secure SAN
- Design Cisco UCS Director for Storage Networking
- Design a Cisco UCS Domain and Fabric Interconnect Cabling
- Design a Cisco UCS C-Series Server Implementation
- Design a Cisco UCS C-Series Integration with Cisco UCS Domain
- Design a Cisco UCS Mini Solution
- Design a Cisco UCS Fabric Interconnect Network and Storage Connectivity
- Design Systemwide Parameters in a Cisco UCS Solution
- Design an LDAP Integration with a Cisco UCS Domain
- Design Pools for Service Profiles in a Cisco UCS Solution
- Design Network-Specific Adapters and Policies in a Cisco UCS Solution

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Información Adicional:

Students looking to achieve their CCNP in Data Center will also require: DCCOR - Implementing and Operating Cisco Data Center Core Technologies.

Más información:

Para más información o para reservar tu plaza llámanos al (34) 91 425 06 60

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