

CISC-11 - DCCOR - IMPLEMENTING AND OPERATING CISCO DATA CENTER CORE TECHNOLOGIES

Categoria: Cisco

INFORMAZIONI SUL CORSO



Durata:
5 Giorni



Categoria:
Cisco



Qualifica Istruttore:
Cisco Certified
Instructor



Dedicato a:
Professionista IT



Produttore:
Cisco

OBIETTIVI

After taking this course, you should be able to:

- Implement routing and switching protocols in Data Center environment
- Implement overlay networks in data center
- Introduce high-level Cisco Application Centric Infrastructure (Cisco ACI) concepts and Cisco Virtual Machine manager (VMM) domain integration
- Describe Cisco Cloud Service and deployment models
- Implement Fibre Channel fabric
- Implement Fibre Channel over Ethernet (FCoE) unified fabric
- Implement security features in data center
- Implement software management and infrastructure monitoring
- Implement Cisco UCS Fabric Interconnect and Server abstraction
- Implement SAN connectivity for Cisco Unified Computing System (Cisco UCS)
- Describe Cisco HyperFlex infrastructure concepts and benefits
- Implement Cisco automation and scripting tools in data center
- Evaluate automation and orchestration technologies

PREREQUISITI

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

- Familiarity with Ethernet and TCP/IP networking
- Familiarity with SANs
- Familiarity with Fibre Channel protocol
- Identify products in the Cisco Data Center Nexus and Cisco MDS families
- Understanding of Cisco Enterprise Data Center architecture
- Understanding of server system design and architecture
- Familiarity with hypervisor technologies (such as VMware)

CONTENUTI

Implementing Data Center Switching Protocols*

- Spanning Tree Protocol
- Port Channels Overview
- Virtual Port Channels Overview

Implementing First-Hop Redundancy Protocols*

- Hot Standby Router Protocol (HSRP) Overview
- Virtual Router Redundancy Protocol (VRRP) Overview
- First Hop Redundancy Protocol (FHRP) for IPv6

Implementing Routing in Data Center*

- Open Shortest Path First (OSPF) v2 and Open Shortest Path Protocol (OSPF) v3
- Border Gateway Protocol

Implementing Multicast in Data Center*

- IP Multicast in Data Center Networks
- Internet Group Management Protocol (IGMP) and Multicast Listener Discovery (MLD)
- Multicast Distribution Trees and Routing Protocols
- IP Multicast on Cisco Nexus Switches

Implementing Data Center Overlay Protocols

- Cisco Overlay Transport Virtualization
- Virtual Extensible LAN

Implementing Network Infrastructure Security*

- User Accounts and Role Based Access Control (RBAC)
- Authentication, Authorization, and Accounting (AAA) and SSH on Cisco NX-OS
- Keychain Authentication
- First Hop Security
- Media Access Control Security
- Control Plane Policing

Describing Cisco Application-Centric Infrastructure

- Cisco ACI Overview, Initialization, and Discovery
- Cisco ACI Management
- Cisco ACI Fabric Access Policies

Describing Cisco ACI Building Blocks and VMM Domain Integration

- Tenant-Based Components
- Cisco ACI Endpoints and Endpoint Groups (EPG)
- Controlling Traffic Flow with Contracts
- Virtual Switches and Cisco ACI VMM Domains
- VMM Domain EPG Association
- Cisco ACI Integration with Hypervisor Solutions

Describing Packet Flow in Data Center Network*

- Data Center Traffic Flows
- Packet Flow in Cisco Nexus Switches
- Packet Flow in Cisco ACI Fabric

Describing Cisco Cloud Service and Deployment Models

- Cloud Architectures
- Cloud Deployment Models

Describing Data Center Network Infrastructure Management, Maintenance, and Operations*

- Time Synchronization
- Network Configuration Management
- Software Updates
- Network Infrastructure Monitoring

Explaining Cisco Network Assurance Concepts*

- Need for Network Assurance
- Cisco Streaming Telemetry Overview

Implementing Fibre Channel Fabric

- Fibre Channel Basics
- Virtual Storage Area Network (VSAN) Overview
- SAN Port Channels Overview
- Fibre Channel Domain Configuration Process

Implementing Storage Infrastructure Services

- Distributed Device Aliases
- Zoning
- N-Port Identifier Virtualization (NPIV) and N-Port Virtualization (NPV)
- Fibre Channel over IP
- Network Access Server (NAS) Concepts
- Storage Area Network (SAN) Design Options

Implementing FCoE Unified Fabric

- Fibre Channel over Ethernet
- Describing FCoE
- FCoE Topology Options
- FCoE Implementation

Implementing Storage Infrastructure Security*

- User Accounts and RBAC
- Authentication, Authorization, and Accounting
- Fibre Channel Port Security and Fabric Binding

Describing Data Center Storage Infrastructure Maintenance and Operations*

- Time Synchronization
- Software Installation and Upgrade
- Storage Infrastructure Monitoring

Describing Cisco UCS Server Form Factors*

- Cisco UCS B-Series Blade Servers
- Cisco UCS C-Series Rack Servers

Implementing Cisco Unified Computing Network Connectivity

- Cisco UCS Fabric Interconnect
- Cisco UCS B-Series Connectivity
- Cisco UCS C-Series Integration

Implementing Cisco Unified Computing Server Abstraction

- Identity Abstraction
- Service Profile Templates

Implementing Cisco Unified Computing SAN Connectivity

- iSCSI Overview
- Fibre Channel Overview
- Implement FCoE

Implementing Unified Computing Security

- User Accounts and RBAC
- Options for Authentication
- Key Management

Introducing Cisco HyperFlex Systems*

- Hyperconverged and Integrated Systems Overview
- Cisco HyperFlex Solution
- Cisco HyperFlex Scalability and Robustness

Describing Data Center Unified Computing Management, Maintenance, and Operations*

- Compute Configuration Management
- Software Updates
- Infrastructure Monitoring
- Cisco Intersight

Implementing Cisco Data Center Automation and Scripting Tools*

- Cisco NX-OS Programmability
- Scheduler Overview
- Cisco Embedded Event Manager Overview
- Bash Shell and Guest Shell for Cisco NX-OS
- Cisco Nexus API

Describing Cisco Integration with Automation and Orchestration Software Platforms

- Cisco and Ansible Integration Overview
- Cisco and Puppet Integration Overview
- Python in Cisco NX-OS and Cisco UCS

Describing Cisco Data Center Automation and Orchestration Technologies*

- Power On Auto Provisioning
- Cisco Data Center Network Manager Overview
- Cisco UCS Director Fundamentals
- Cisco UCS PowerTool

* This section is self-study material that can be done at your own pace after the instructor-led portion of the course.

Lab outline

- Configure Overlay Transport Visualization (OTV)
- Configure Virtual Extensible LAN (VXLAN)
- Explore the Cisco ACI Fabric
- Implement Cisco ACI Access Policies and Out-of-Band Management
- Implement Cisco ACI Tenant Policies
- Integrate Cisco ACI with VMware
- Configure Fibre Channel
- Configure Device Aliases
- Configure Zoning
- Configure NPV
- Configure FCoE
- Provision Cisco UCS Fabric Interconnect Cluster
- Configure Server and Uplink Ports
- Configure VLANs
- Configure a Cisco UCS Server Profile Using Hardware Identities
- Configure Basic Identity Pools
- Configure a Cisco UCS Service Profile Using Pools
- Configure an Internet Small Computer Systems Interface (iSCSI) Service Profile
- Configure Cisco UCS Manager to Authenticate Users with Microsoft Active Directory
- Program a Cisco Nexus Switch with Python

INFO

Esame: 350-601 - Implementing Cisco Data Center Core Technologies

Materiale didattico: Materiale didattico ufficiale Cisco in formato digitale

Costo materiale didattico: incluso nel prezzo del corso a Calendario

Natura del corso: Operativo (previsti lab su PC)