CISC-27 - DCFNDU - UNDERSTANDING CISCO DATA CENTER FOUNDATIONS V2.0

Categoria: **Cisco**

INFORMAZIONI SUL CORSO

Durata:	Categoria:	Qualifica Istruttore:	Dedicato a:	Produttore:
5 Giorni	Cisco	Cisco Certified Instructor	Professionista IT	Cisco

OBIETTIVI

After completing this course, you should be able to:

- -Describe the foundations of data center networking
- -Describe Cisco Nexus products and explain the basic Cisco NX-OS functionalities and tools
- -Describe Layer 3 first-hop redundancy
- -Describe Ethernet port channels and vPCs
- -Introduce switch virtualization
- -Introduce machine virtualization
- -Describe network virtualization
- -Compare storage connectivity options in the data center
- -Describe Fibre Channel communication between the initiator server and the target storage
- -Describe Fibre Channel zone types and their uses
- -Describe NPV and NPIV
- -Describe data center Ethernet enhancements that provide a lossless fabric
- -Describe FCoE
- -Describe data center server connectivity
- -Describe Cisco UCS Manager
- -Describe the purpose and advantages of APIs
- -Describe Cisco ACI
- -Describe Nexus Dashboard
- -Describe the basic concepts of cloud computing

PREREQUISITI

Attendees should meet the following prerequisites:

- -Good foundation of networking protocols
- -Basic knowledge of computer virtualization
- -Basic computer literacy
- -Basic knowledge of computer operating systems
- -Basic internet usage skills

Recommended prerequisites:

-CCNA - Implementing and Administering Cisco Solutions

CONTENUTI

Describing the Data Center Network Architectures

-Cisco Data Center Architecture Overview
-Three-Tier Network: Core, Aggregation, and Access
-Spine-and-Leaf Network
-Storage Area Networks
-Hypoconverged Storage Systems

Describing the Cisco Nexus Family and Cisco NX-OS Software

-Cisco Nexus Data Center Product Overview
-Cisco NX-OS Software Architecture
-Cisco NX-OS Software CLI Tools
-Cisco NX-OS Virtual Routing and Forwarding

Describing Layer 3 First-Hop Redundancy

-Default Gateway Redundancy
-Hot Standby Router Protocol
-Virtual Router Redundancy Protocol
-Gateway Load Balancing Protocol

Describing Port Channels and vPCs

-Ethernet Port Channels
-Virtual Port Channels

Describing Switch Virtualization

-Cisco Nexus Switch Basic Components
-Virtual Routing and Forwarding

Describing Machine Virtualization

-Virtual Machines
-Hypervisor
-Virtual Machine Manager

Describing Network Virtualization

-Overlay Network Protocols
-VXLAN Overlay
-VXLAN BGP EVPN Control Plane
-VXLAN Data Plane
-VMware vSphere Virtual Switches

Introducing Basic Data Center Storage Concepts

-Storage Connectivity Options in the Data Center
-Fibre Channel Storage Networking
-VSAN Configuration and Verification

Describing the Cisco MDS Family

- -Cisco MDS Overview

Describing Fibre Channel Communication Between the Initiator Server and the Target Storage

- -Fibre Channel Layered Model
- -FLOGI Process
- -Fibre Channel Flow Control

Describing Fibre Channel Zone Types and Their Uses

- -Fibre Channel Zoning
- -Zoning Configuration
- -Zoning Management

Describing Cisco NPV Mode and NPIV

- -Cisco Switch Mode
- -NPIV Mode

Describing FCoE

- -FCoE Architecture

Describing Cisco UCS and UCS-X Components

- -Cisco UCS Server Hardware
- -Cisco Intersight
- -Cisco Compute Hyperconverged with Nutanix

Describing Cisco UCS Manager and Cisco Intersight

- -Cisco UCS Manager Overview
- -Identity and Resource Pools for Hardware Abstraction
- -Service Profiles and Service Profile Templates
- -Cisco Intersight Overview

Automating the Data Center

- -Cisco NX-OS Programmability
- -Cisco NX-OS Model-Driven Programmability
- -Cisco Nexus API
- -Python
- -Ansible
- -HashiCorp Terraform

Describing Cisco Nexus Dashboard

- -Cisco Nexus Dashboard Overview
- -Cisco Nexus Dashboard Fabric Controller Overview

Describing Cisco ACI

- -Cisco ACI Overview
- -Cisco ACI Topology and Hardware
- -Cisco ACI Policy Model
- -Cisco ACI External Connectivity Options
- -Cisco ACI and VMM Integration
- -Cisco ACI and Layer4-Layer 7 Integration

-Cisco ACI Management and Automation
-Cisco ACI Anywhere

Describing Cloud Computing

-Cloud Computing Overview
-Cloud Deployment Models
-Cloud Computing Services

Labs

-Discovery Lab 1: Explore the Cisco NX-OS CLI
-Discovery Lab 2: Explore Topology Discovery
-Discovery Lab 3: Configure HSRP
-Discovery Lab 4: Configure vPCs
-Discovery Lab 5: Configure VRF
-Discovery Lab 6: Explore CoPP and Spanning Tree on Cisco Nexus Switches
-Discovery Lab 7: Install VMware ESXi and vCenter
-Discovery Lab 8: Configure VSANs
-Discovery Lab 9: Validate FLOGI and FCNS
-Discovery Lab 10: Configure Zoning
-Discovery Lab 11: Review Unified Ports on a Cisco Nexus Switch and Implement FCoE
-Discovery Lab 12: Explore the Cisco UCS Server Environment
-Discovery Lab 13: Configure a Cisco UCS Service Profile
-Discovery Lab 14: Configure Cisco NX-OS with APIs
-Discovery Lab 15: Explore the Cisco UCS Manager XML API Management Information Tree
-Discovery Lab 16: Explore Cisco ACI

INFO

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)