Introducing Cisco Data Center Networking (CS-DCICN v6.0)

Modality: Virtual Classroom

Duration: 2.5 Days

CLC: 27 Units

About this course:

The course of Introducing Cisco Data Center Networking has been created to present understudies to the different configuration options for data centers that are accessible. Understudies will be introduced to the different advances that data centers take a shot at for an increased understanding of setups and the exceptional arrangement of features of every one of them.

Covering different parts of data center networking from routing to norms and communication functions within the network, the course serves is perfect for IT operations training.

Course objectives:

This course has been planned to:

- Introduce understudies to principles and capacities for Ethernet interchanges
- Explain the Open System and TCP/IP Interconnection models to understudies
- Assist understudies with understanding the various storage connectivity options for the data center to assist them with making informed choices
- Familiarize understudies to texture login (FLOGI), Nexus switch routing, and the processes of the Fiber Channel name server.
- Ethernet Functions and Standards
- Ethernet Hardware and Switching
- OSI and TCP/IP Models
- IPv4 and IPv6 Network Layer Addressing
- Packet Delivery on a Hierarchical Network
- TCP/IP Transport Layer
- Data Center Network Architectures
- the Cisco Nexus Family and NX-OS
- Implementing VLANs and Trunks
- Communication Between Initiator and Target
- Fibre Channel Zone Types and Their Uses
- Cisco NPV Mode and NPIV
- Data Center Ethernet Enhancements
- Fibre Channel over Ethernet
- Explore UDP and TCP Communication
- Explore the NX-OS Command Line Interface of Cisco
- Explore Topology Discovery and Documentation

Audience:

This course is planned for:

- Network engineers and consulting system
- Managers, Administrators, and designers of networks
- Cisco integrators and partners
- Architects responsible for technical solutions development

Prerequisites:

- Information and working experience of different networking protocols
- Understanding of VMware environment and understand how it works
- Knowledge and working experience of Microsoft Windows operating system
- Fundamental internet navigability skills
- Completion or understanding of the concepts covered in the ICND1: Interconnecting Cisco Networking Devices Part 1 and DCICT: Introducing Cisco Data Center Technologies

Finish or understanding of the ideas included in;

ICND1 -- Interconnecting Cisco Networking Devices Part 1

DCICT -- Introducing Cisco Data Center Technologies

Course Outline:

Module 1: Network Protocols and Host-to-Host Communication

- Ethernet Functions and Standards
- Ethernet Hardware and Switching
- OSI and TCP/IP Models
- IPv4 and IPv6 Network Layer Addressing
- Packet Delivery on a Hierarchical Network
- TCP/IP Transport Layer

Module 2: Basic Data Center Networking Concepts

- Data Center Network Architectures
- the Cisco Nexus Family and NX-OS
- Implementing VLANs and Trunks

Module 3: Advanced Data Center Networking Concepts

- Routing Process on Nexus Switches
- Routing Protocols on Nexus Switches
- Layer 3 First Hop Redundancy
- AAA on Nexus Switches
- ACLs on Nexus Switches

Module 4: Basic Data Center Storage

- Storage Connectivity Options in the Data Center
- Fibre Channel Storage Networking
- VSANs

Module 5: Advanced Data Center Storage

- Communication Between Initiator and Target
- Fibre Channel Zone Types and Their Uses
- Cisco NPV Mode and NPIV
- Data Center Ethernet Enhancements
- Fibre Channel over Ethernet

Module 6: Cisco UCS Architecture

- Cisco UCS Server Hardware Components
- Cisco UCS Physical Connectivity for a Fabric Interconnect Cluster
- Cisco UCS Manager Interfaces

Labs

Lab 1: Use the DCICN Lab System

Lab 2: Explore LAN Communication

Lab 3: Explore Protocol Analysis

Lab 4: Explore TCP and UDP Communication

Lab 5: Explore the Cisco NX-OS Command Line Interface

Lab 6: Explore Topology Discovery and Documentation

Lab 7: Implement VLANs and Trunks

Lab 8: Map a Spanning Tree and Configure Port Channels

Lab 9: Implement Multilayer Switching

Lab 10: Configure OSPF

Lab 11: Configure EIGRP

Lab 12: Configure HSRP

Lab 13: Configure AAA and Secure Remote Administration

Lab 14: Configure ACLs

Lab 15: Configure VSANs

Lab 16: Validate FLOGI and FCNS

Lab 17: Configure Zoning

Lab 18: Explore the Cisco UCS Manager GUI

Lab 19: Calculate Decimal, Binary, and Subnet