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Learning Style: On Demand

Provider: Cisco

Difficulty: Intermediate

Course Duration: 40 Hours

Introducing Cisco Data Center Networking - On Demand (DCICN v6.2)



About this course:

In this course, students are introduced to Cisco Data Center Networking (DCICN v6.6). DCICN introduces students to three key technologies used at the Cisco Data Center. The introductory course is designed to meet the level of knowledge of the individual who perform the basics of configuring tasks. The DCICN course contains labs which focus on viewing configuration. The course also help the interested students to prepare for the Cisco Exam: 200-150 DCICN.

The course is beneficial for those who wants to broaden their skills and want to ride up the ladder of their. The average earning of a Cisco network engineer is \$77,484 per annum.

Course Objectives:

Standards of Ethernet Communication

Functions of Ethernet Communication

Nexus Switches

Transmission Control Protocol/Internet Protocol Models

OSI Models

Audience:

The target audience for this course are professionals in Network.

Designer

System Engineers

Architects of Technical Solutions

Prerequisites:

Should have knowledge of network protocols

Should have basic computer knowledge

Should have skills for Internet usage

Interconnecting Cisco Networking Devices

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**