



CCNA - Data Center



DCICN – Introducing Cisco Data Center Networking v6.0 (200-150)

Pre-Requisites:

- Good understanding of networking protocols
- Good understanding of the VMware environment
- Basic computer literacy
- Basic knowledge of Microsoft Windows Operating Systems
- Basic Internet usage skills

Course Content:

In the course “Introducing Cisco Data Center Networking (DCICN) v 6.0”, students are introduced to the primary technologies that are used in the Cisco Data Center. The introductory level of knowledge that is taught in this course is targeted for individuals who will perform only the more basic configuration tasks. The course lab exercises focus on viewing configurations, with some configuration changes made by that student.

Course Objectives:

- Describe Ethernet communication functions and standards
- Describe the OSI and TCP/IP models
- Describe the routing process on Nexus switches
- Compare storage connectivity options in data center
- Describe the Fibre Channel name server and fabric login (FLOGI) process

Course Outline:

- Module 1: Network Protocols and Host-to-Host Communication
- Module 2: Basic Data Center Networking Concepts
- Module 3: Advanced Data Center Networking Concepts
- Module 4: Basic Data Center Storage
- Module 5: Advanced Data Center Storage
- Module 6: Cisco UCS Architecture
- Labs:
 - Lab 1: Use Windows Applications as Network Tools
 - Lab 2: Observe the TCP Three-Way Handshake
 - Lab 3: Observe Extended PC Network Information
 - Lab 4: Connect to Cisco Nexus Switches
 - Lab 5: Configure the Cisco Nexus Switches
 - Lab 6: Configure VLANs and Trunks
 - Lab 7: Verify and Configure Spanning Tree
 - Lab 8: Configure EtherChannel
 - Lab 9: Convert Decimal to Binary and Binary to Decimal
 - Lab 10: Classify Network Addressing
 - Lab 11: Compute Usable Subnetworks and Hosts
 - Lab 12: Calculate Subnet Masks
 - Lab 13: Configure Multilayer Switching

DCICT – Introducing Cisco Data Center Networking Technologies v6.0 (200-155)

Pre-Requisites:

- Knowledge of DCICN (Introducing Cisco Data Center Networking v6.0) or equivalent

Course Content:

In the course “Introducing Cisco Data Center Networking (DCICN) v 6.0”, students are introduced to the primary technologies to Cisco technologies and products that are deployed in the data center: network virtualization, network technologies, unified computing, automation and orchestration, and the Cisco Application-Centric Infrastructure (Cisco ACI). The introductory level of knowledge that is provided in these courses is targeted for individuals who can perform basic configuration tasks. The hands-on lab exercises focus on configuring features on Cisco Nexus Operating System (Cisco NX-OS), Cisco Unified Computing System (Cisco UCS), and Cisco UCS Director.

Course Objectives:

- Describe and configure Cisco UCS
- Describe and configure Cisco data center virtualization
- Describe and configure Cisco data center networking
- Describe and configure Cisco automation and orchestration
- Describe and verify Cisco ACI

Course Outline:

- Module 1: Cisco Data Center Network Virtualization
- Module 2: Cisco Data Center Network Technologies Configuration
- Module 3: Cisco Unified Computing System
- Module 4: Data Center Automation and Orchestration
- Module 5: Cisco Application-Centric Infrastructure
- Labs:
 - Lab 1: Connect to a Cisco Nexus 7000 Series Switch Using Secure Shell (SSH)
 - Lab 2: Connect to a Cisco Nexus 5000 Series Switch Using SSH
 - Lab 3: Run Command Line Interface (CLI) Commands
 - Lab 4: Configure vPCs
 - Lab 5: Validate Cisco FabricPath Configuration
 - Lab 6: Validate Overlay Transport Virtualization (OTV) Configuration
 - Lab 7: Verify Current Virtual Device Context (VDC) Settings
 - Lab 8: Validate a Cisco Nexus 2000 Series Fabric Extender Configuration
 - Lab 9: Validate a Cisco Nexus 1000V Series Switch Configuration
 - Lab 10: Validate a Cisco MDS 9100 Series Multilayer Fabric Switch License
 - Lab 11: Configure VSANs and Zoning
 - Lab 12: Validate FLOGI and FCNS
 - Lab 13: View the Tech-Support Command Output
 - Lab 14: Validate the Physical Connections for FCoE
 - Lab 15: Explore the Cisco UCS Manager Graphical User Interface (GUI)
 - Lab 16: Create a Service Profile from a Template and Performing VMware ESXi 5.0 SAN Boot