

## COURSE OVERVIEW:

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Introducing Cisco Data Center Technologies (DCICT) v6.2 is a five-day DCICT course that introduces 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 (ACI). The introductory-level of knowledge that is provided in this DCICT v6.2 training 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. Recommended prerequisites for students include having a working knowledge of networking protocols along with the VMware environment in general.

## WHO SHOULD ATTEND:

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- Network designers, administrators, engineers, and managers
- Storage administrators
- Server administrators
- Program managers
- Project managers
- Systems engineers

## PREREQUISITES:

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- Good understanding of networking protocols
- Good understanding of the VMware environment

## COURSE OBJECTIVES:

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- Configure Cisco UCS
- Configure Cisco data center virtualization
- Configure Cisco data center networking
- Configure Cisco automation and orchestration
- Verify Cisco ACI



## COURSE OUTLINE:

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### **Module 1: Cisco Data Center Network Virtualization**

- Functional Planes of Cisco Nexus Switches
- Cisco Nexus Operating System VRF Contexts
- Virtual Device Contexts
- Function of Overlays
- Virtualization
- Virtual Switches

### **Module 2: Cisco Data Center Network Technologies Configuration**

- Cisco Fabric Extender Connectivity
- Port Channels and Virtual Port Channels
- Cisco FabricPath
- Unified Port Feature of Cisco Nexus Switches
- Cisco Unified Fabric

### **Module 3: Cisco Unified Computing System**

- Data Center Server Connectivity
- Cisco IMC Supervisor
- Cisco UCS Manager Operations
- Role-Based Access Control
- Hardware Abstraction in Cisco UCS

### **Module 4: Data Center Automation and Orchestration**

- Utility of Application Programming Interfaces
- Cloud Computing Basic Concepts
- Cloud Attributes and Service Models
- Cisco UCS Director
- VDCs, Tenants, and Policies
- Orchestration
- Managing Catalogs and Templates
- Reporting in Cisco UCS Director (CloudSense)

## Module 5: Cisco Application-Centric Infrastructure

- Cisco ACI
- Cisco ACI Fabric
- Programming and Orchestrating Cisco ACI

## LAB OUTLINE

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- Lab 1: Connect to Cisco Nexus Series Switches Using SSH
- Lab 2: Configure VRFs
- Lab 3: Explore the Elements of Virtual Device Contexts
- Lab 4: Install VMware ESXi on UCS C-Series Rack Server
- Lab 5: Install VMware vCenter Server Appliance
- Lab 6: Install Cisco Virtual Switch Update Manager
- Lab 7: Install Cisco Nexus 1000V with VSUM
- Lab 8: Configure a Port Group in the DVS
- Lab 9: Configure the Cisco Nexus 2000 Fabric Extender
- Lab 10: Configure Virtual Port Channels
- Lab 11: Configure Virtual Port Channels with FEX
- Lab 12: Configure Cisco FabricPath
- Lab 13: Configure Unified Ports on Cisco Nexus Switch
- Lab 14: Implement FCoE
- Lab 15: Install and Configure the Cisco IMC Supervisor
- Lab 16: Navigate the Cisco UCS Manager GUI Interfaces
- Lab 17: Configure Local RBAC
- Lab 18: Configure Pools
- Lab 19: Configure a Service Profile Template
- Lab 20: Configure Cisco NX-OS with APIs
- Lab 21: Explore the Management Information Tree of the Cisco UCS Manager XML API
- Lab 22: Configure Cisco UCS Manager with the Postman REST Plugin for Google Chrome
- Lab 23: Install and Configure User Accounts in Cisco UCS Director
- Lab 24: Add Virtual and Physical Accounts to Cisco UCS Director
- Lab 25: Customize Cisco UCS Director
- Lab 26: Explore Cisco UCS Director Monitoring Capabilities

## Introducing Cisco Data Center Technologies (DCICT) 6.2

- Lab 27: Create Policies and VDCs
- Lab 28: Create a Catalog and Provision a VM Using the Self-Service Portal
- Lab 29: Explore Cisco UCS Director Built-In Reports
- Lab 30: View Chargeback and Reports