

Cisco® Implementing Cisco® Data Center Virtualization and Automation v6.0 (DCVAI)

Course Overview

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This is a 5-day class

This course is designed to help students prepare for the Cisco CCNP Data Center certification and for professional-level data center roles.

Who Should Attend

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Systems and field engineers
Consulting systems engineers
Technical solutions architects
Cisco integrators and partners who install and implement the Cisco Nexus 7000 and 5000 Series switches and the Cisco Nexus 2000 Series fabric extenders
Data center engineers and managers
Program managers
Project managers

Course Objectives

After completion of this course, students will be able to...

Implement infrastructure virtualization solutions, such as VDC, VRFs, Cisco Nexus 1000v, and Cisco AVS
Identify programmability methods and program Cisco Nexus switches using XML, Python, and NXAPI
Implement a Cisco ACI solution that provides fabric connectivity to bare-metal hosts, virtual machines, and external Layer 2 and Layer 3 domains
Integrate Cisco ACI with virtual machine managers, such as VMware vCenter
Enforce application policies in intra- and intertenant scenarios
Deploy Cisco AVS and microsegmentation
Program Cisco ACI using Python, RESTful APIs, and Arya
Orchestrate Cisco ACI using the Cisco UCS Director
Insert L4-L7 services into the Cisco ACI fabric
Monitor Cisco ACI deployment using atomic counters and other monitoring tools.

Course Outline

1 INFRASTRUCTURE VIRTUALIZATION IMPLEMENTATION

Configuring Logical Device Separation
Configuring Virtual Switching Technologies

2 NX-OS CONFIGURATION AUTOMATION

Implementing Configuration Programmability
Implementing Configuration Profiles
Using Scripting Tools

3 APPLICATION-CENTRIC INFRASTRUCTURE

Describing Cisco ACI Fabric
Describing Management
Describing Cisco ACI Fabric Access Policies



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4 ACI CONSTRUCTS

Describing Tenant-Based Policies
Describing VMM Domain Integration
Describing Contracts Within an Application Profile

5 APPLICATION-CENTRIC INFRASTRUCTURE MONITORING AND PROGRAMMABILITY

Configuring Monitoring
Configuring Security Domains and Role Mapping
Describing Cisco ACI Programmability

6 CISCO ACI ENHANCED FEATURES

Implementing Inter-Tenant Communication
Describing vPC
Deploying Cisco AVS

7 APPLICATION-CENTRIC INFRASTRUCTURE NETWORKING

Describing Packet Flow Internal to the ACI Fabric
Describing External Layer 3 Network Integration
Describing External Layer 2 Network Integration
Configuring Service Insertion and Redirection