

Implementing Cisco Data Center Virtualization and Automation (DCVAI)

Duration 5 Days

COURSE CONTENT

The Implementing Cisco Data Center Virtualization and Automation (DCVAI) course is a skills-building course that focuses on the implementation and deployment automation of Cisco Application Centric Infrastructure (ACI) and Cisco Nexus switches. The course provides rich hands-on experience in building a data center solution based on Cisco ACI. Learners are introduced to the automation capabilities offered by Python and RESTful APIs.

Upon completion of this course, you will be able to:

- Describe two primary features to logically separate a physical switch
- Describe the Nexus 1000 virtual switch, programmability options on Cisco NX-OS, and different scripting tools available with Cisco NX-OS
- Describe CLI features that simplify configuration management
- Introduce the high-level concepts and describe the different fabric discovery parameters for Cisco ACI.
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- Create tenant-based policies for bare metal hosts
- Describe the integration of VM Manager Domains with Cisco ACI
- Describe how Cisco ACI supports multitier applications, its monitoring capabilities, and programmability and orchestration
- Describe vPC-based aggregation and availability
- Describe Cisco AVS, distributed firewall, and micro-segmentation
- Describe packet flows within the Cisco ACI and integrating Cisco ACI with external Layer 3 network
- Describe how L4–L7 services are inserted into the Cisco ACI fabric, and how traffic is subsequently redirected

PREREQUISITES

To fully benefit from this course, students attending this training should have completed the following courses or obtained the equivalent level of knowledge:

- Introducing Cisco Data Center Networking (DCICN) v6.0 or higher
- Introducing Cisco Data Center Technologies (DCICT) v6.0 or higher
- Configuring Cisco Nexus 9000 Series Switches in ACI Mode (DCAC9K) v2.0 or higher
- Good understanding of the VMware environment

It is recommended that a learner has the following knowledge and skills before attending this course:

- Describe data center networking concepts
- Describe data center storage concepts
- Describe data center virtualization

WHO SHOULD ATTEND

- Network Designer
- Network Administrator
- Network Engineer
- System Engineer
- Consulting Systems Engineer
- Technical Solutions Architect
- Channel Partners

COURSE OUTLINE**Module 1: Infrastructure Virtualization Implementation**

- Lesson 1: Configuring Logical Device Separation
- Lesson 2: Configuring Virtual Switching Technology

Module 2: Cisco NX-OS Configuration Automation

- Lesson 1: Implementing Configuration Programmability
- Lesson 2: Implementing Configuration Profiles
- Lesson 3: Using Scripting Tools

Module 3: Application-Centric Infrastructure Overview

- Lesson 1: Introducing Cisco ACI

Module 4: Cisco ACI Building Blocks and Application Policies

- Lesson 1: Building Tenant-Based Policies with Bare-Metal Hosts
- Lesson 2: Describing VMM Domain Integration
- Lesson 3: Multitier Applications in Cisco ACI

Module 5: Cisco ACI Manageability and Programmability

- Lesson 1: Monitoring and Managing Cisco ACI
- Lesson 2: Describing Cisco ACI Programmability and Orchestration

Module 6: Cisco ACI Enhanced Features

- Lesson 1: Describing vPC
- Lesson 2: Deploying Cisco AVS

Module 7: Data Center Compute Resource Parameters Design

- Lesson 1: Describing Packet Flow Internal to the ACI Fabric
- Lesson 2: Describing External Layer 3 Network Integration
- Lesson 3: Describing External Layer 2 Network Integration
- Lesson 4: Configuring Service Insertion and Redirection