

Implementing Cisco Data Center Virtualization and Automation (DCVAI)

Duration: **5 days**

Who should attend?

1. Network Designer
2. Network Administrator
3. Network Engineer
4. Systems Engineer
5. Consulting Systems Engineer
6. Technical Solutions Architect
7. Cisco Integrators/Partners

Prerequisites

The knowledge, skills, and attitudes that a learner is expected to have before attending this course are as follows:

1. Students considered for this training should have attended the following classes or obtained equivalent level of knowledge:
2. Good understanding of the VMware environment

The knowledge and skills that a learner should have before attending this course:

1. Describe data center networking concepts
2. Describe data center storage concepts
3. Describe data center virtualization

Course Objectives

The goal of the course is to develop competency in learners to virtualize and program data centers, and implement the Cisco Application Centric Infrastructure. The focus of the course is on the programmability capabilities of the Cisco ACI, using common tools, such as Python and RESTful programming.

Upon completing this course, the learner will be able to meet these overall objectives:

1. Describe two primary features to logically separate a physical switch.
2. Describe the Nexus 1000 virtual switch.
3. Describe programmability options on Cisco NX-OS.
4. Describe CLI features that simplify configuration management.
5. Use different scripting tools available with Cisco NX-OS.
6. Introduce the high-level concepts and describe the different fabric discovery parameters for Cisco ACI.
7. Create tenant-based policies for bare metal hosts

8. Describe the integration of VM Manager Domains with Cisco ACI
9. Describe how Cisco ACI supports multitier applications
10. List Cisco ACI monitoring capabilities
11. Describe Cisco ACI programmability and orchestration
12. Describe vPC-based aggregation and availability
13. Describe Cisco AVS, distributed firewall, and micro segmentation
14. Describe integrating Cisco ACI with external Layer 3 networks
15. Outline the integration options with external Layer 2 networks
16. Describe how L4–L7 services are inserted into the Cisco ACI fabric, and how traffic is subsequently redirected. Describe packet flows within the Cisco ACI

Course Content

The Implementing Cisco Data Center Virtualization and Automation (DCVAI) v6.2 course is designed to help students prepare for the Cisco CCNP Data Center certification and for professional-level data center roles. The focus of this skills-building course is 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 in combination with Cisco ACI and Cisco Nexus switches. You'll master the professional-level skills and technologies needed to implement Cisco Application Centric Infrastructure (ACI), virtualization, and automation of data center operations.