

COURSE OVERVIEW:

Configuring Cisco Nexus 9000 Switches in ACI Mode (DCAC9K) v3.1 is a 5-day instructor-led course that covers the key components and procedures that Field Engineers, Systems Engineers, and Systems Administrators need to know in order to understand, deploy, configure, and manage Cisco Nexus 9000 Series Switches in Application Centric Infrastructure (ACI) mode, as well as how to connect the ACI fabric to external networks and services.

WHO SHOULD ATTEND:

The primary audience for this course includes:

- Network Architects
- Data Center Cloud Systems Architects
- Systems Administrators

The secondary audience for this course includes:

- Application Developers
- Security Engineers
- Virtualization Administrators

PREREQUISITES:

The knowledge and skills that a learner must have before attending this course are as follows:

- Students should be familiar with Cisco Ethernet switching products.
- Students should understand Cisco data center architecture.
- Students should be familiar with virtualization.
 - Good understanding of networking protocols, routing, and switching:
 - Recommended CCNA Certification
 - Recommended attendance of Implementing Cisco IP Routing v2.0 (ROUTE)
 - Recommended attendance of Implementing Cisco IP Switched Networks v2.0 (SWITCH)



Configuring Cisco Nexus 9000 Series Switches in ACI Mode (DCAC9K) 3.1

During the course of instruction, the learner will be exposed to the configuration of advanced technologies, such as BGP, OSPF and IS-IS. The learner will not be required to have experience with these technologies in order successfully complete the class.

COURSE OBJECTIVES:

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

- Describe the Cisco Nexus 9000 Series Switch ACI
- Discuss the ACI fabric
- Review Cisco Nexus 9000 Series Switch hardware
- Configure the ACI controller (APIC)
- Configure ACI L4-L7 service integration
- Integrate the APIC hypervisor
- Understand the programmability and orchestration of the ACI network
- Discuss ACI connectivity to outside networks
- Implement ACI management
- Describe migration options with ACI

COURSE OUTLINE:

Module 1: Cisco Application Infrastructure Overview

- Lesson 1: Describing the Cisco Nexus 9000 Series Switch in ACI Mode
- Lesson 2: Describing the Cisco ACI Fabric
- Lesson 3: Describing Cisco Nexus 9000 Series Switch Hardware
- Lesson 4: Configuring the APIC

Module 2: Cisco Application Centric Infrastructure Configuration and Orchestration

- Lesson 1: Configuring Layer 4 through Layer 7 Services
- Lesson 2: Configuring APIC Hypervisor Integration
- Lesson 3: Demonstrating ACI Network Programmability and Orchestration

Module 3: Cisco Application Centric Infrastructure External Connectivity, Management, and Migration

- Lesson 1: Configuring ACI Connectivity to Outside Networks
- Lesson 2: Implementing ACI Management
- Lesson 3: Describing Migration Options with the ACI

LAB OUTLINE:

- Lab 1: Initiate ACI Fabric Discovery (Instructor Demo)
- Lab 2: Configure Basic Network Constructs
- Lab 3: Configure Policy Filters and Contracts
- Lab 4: Deploy a Three-Tier Application Profile
- Lab 5: Register a VMM Domain with ACI
- Lab 6: Configure VMware ESXi Hosts to use the APIC DVS
- Lab 7: Associate an EPG to a VMware vCenter Domain
- Lab 8: Associate a VM to an EPG Port Group
- Lab 9: Deploy a Service Graph with Application Profile
- Lab 10: Configure APIC using the REST API
- Lab 11: Configure APIC to Communicate to an External Layer 3 Network
- Lab 12: Configure APIC to Communicate to an External Layer 2 Network
- Lab 13: Configure APIC RBAC for Local and Remote Users
- Lab 14: Monitor and Troubleshoot ACI
- Lab 15: Configure APIC for Bare Metal to Bare Metal Communications