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## Configuring Cisco Nexus 9000 Switches in ACI Mode

DURATION: 4 DAYS

COURSE CODE: DCAC9K

FORMAT: LECTURE/LAB

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### COURSE DESCRIPTION

The Configuring Cisco Nexus 9000 Series Switches in ACI Mode (DCAC9K) v3.0 course is designed for senior engineers and IT professionals who implement and manage Cisco Nexus 9000 Series Switches in Cisco Application Centric Infrastructure (Cisco ACI) mode. This course covers the key components of the Cisco ACI architecture, along with the knowledge and hands-on skills you need to configure, manage, and troubleshoot Cisco Nexus 9000 Series Switches in Cisco ACI mode and connect the Cisco ACI fabric to external networks and services. You will learn how to deploy Cisco ACI security, networking, virtualization, automation, and programmability features on the Cisco Nexus 9000 Series Switches and migrate to a policy-enforced data center.

In this Firefly delivery of the DCAC9K, the off-the-shelf course materials are supplemented with the very latest product developments delivered by Cisco including the following (and many more):

- Cisco Multi-Pod ACI
- FCoE NPV
- Cisco vCenter ACI Plug-in
- vRealise Integration
- Policy Based Redirect
- L3 extension with MP-BGP EVPN
- Service Graph Copy Service
- The latest 100G capable 9000 Series switching platforms and Fabric Modules
- EPG Micro-segmentation

### WHO SHOULD ATTEND

- Data Center Engineers
  - Data Center Architects
  - Network Designers
  - Network Administrators
  - Network Engineers
  - Virtualization Engineers
  - Cloud Infrastructure Engineers
  - Systems Engineers
  - Consulting Systems Engineers
  - Technical Solutions Architects
  - Field Engineers
  - Cisco Integrators and Partners
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### PREREQUISITES

It is recommended, but not required, to have the following skills and knowledge before attending this course:

- Familiarity with Cisco Ethernet switching products
  - Understanding of Cisco data center architecture
  - Familiarity with VMware virtualization fundamentals
  - Understanding of networking protocols, routing, and switching
- These are the recommended Cisco courses that may help you meet these prerequisites:
- Interconnecting Cisco Networking Devices, Part 1 (ICND1), and Interconnecting Cisco Networking Devices, Part 2 (ICND2)
  - Implementing Cisco IP Routing (ROUTE)
  - Implementing Cisco IP Switched Networks (SWITCH)
  - Introducing Cisco Data Center Networking (DCICN)
  - Introducing Cisco Data Center Technologies (DCICT)

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## LEARNING OBJECTIVES

Install the Cisco Nexus 9000 Series Switches in Cisco ACI mode

Deploy the Cisco ACI fabric

Configure the Cisco ACI controller (Application Policy Infrastructure Controller [APIC])

Describe the Cisco Nexus 9000 Series Switch hardware

Understand the differences between Cisco ACI code versions

Configure Cisco ACI Layer 4 through Layer 7 service integration

Integrate virtual and physical workloads in a multi-hypervisor fabric

Deploy the security and management capabilities of the Cisco ACI network

Connect Cisco ACI to outside networks

Extend and interconnect the Cisco ACI fabric

Migrate from a traditional data center to Cisco ACI with a common, policy-enforced approach

Manage Cisco ACI

Program and orchestrate the Cisco ACI network

Troubleshoot Cisco ACI

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## COURSE OUTLINE

1. Cisco ACI Overview
2. Cisco ACI Codes, Delta Releases, and Features
3. Virtualization, Containers, and Third-Party Integration Features
4. Security and Monitoring Features
5. Cisco ACI External Networking
6. Cisco ACI Fabric Extensions and Interconnections
7. Fabric Management and Automation
8. Common Troubleshooting Scenarios

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## DISCOVERY LABS

- 1: Explore the Cisco ACI Fabric Inventory
- 2: Implement Cisco ACI Fabric Connectivity
- 3: Configure Cisco ACI Logical Constructs
- 4: Integrate Cisco ACI with VMware Using Native DVS
- 5: Deploy Cisco ACI Virtual Edge and Micro-Segmentation
- 6: Integrate Cisco ASA with Cisco APIC
- 7: Configure Role-Based Access Control
- 8: Explore Cisco ACI Monitoring and Netflow
- 9: Enable Connectivity to External L3 Networks
- 10: Enable Connectivity to External L2 Networks
- 11: Configure Cisco APIC Using REST API
- 12: Configure Cisco APIC Using Python Scripts
- 13: Explore Cisco ACI App Center and Cisco ACI Optimize Feature
- 14: Explore Cisco ACI Troubleshooting Tools
- 15: Export TechSupport