

DCACI: Implementing Cisco Application Centric Infrastructure

Course Code: DCACI

Duration: 5 days

Instructor-led Training (ILT) | Virtual Instructor-led Training (VILT)

OVERVIEW

You will learn how to configure and manage Cisco Nexus 9000 Series Switches in ACI mode, how to connect the Cisco ACI fabric to external networks and services, and the fundamentals of Virtual Machine Manager (VMM) integration. You will gain hands-on practice implementing key capabilities such as fabric discovery, policies, connectivity, VMM integration, and more. This course earns you 40 Continuing Education (CE) credits towards recertification.

SKILLS COVERED

After taking this course, you should be able to:

- Describe Cisco ACI Fabric Infrastructure and basic Cisco ACI concepts
- Describe Cisco ACI policy model logical constructs
- Describe Cisco ACI basic packet forwarding
- Describe external network connectivity
- Describe VMM Integration
- Describe Layer 4 to Layer 7 integrations
- Explain Cisco ACI management features

WHO SHOULD ATTEND?

- Network Designer
- Network Administrator
- Network Engineer
- Systems Engineer
- Data Center Engineer
- Consulting Systems Engineer
- Technical Solutions Architect

- Cisco Integrators/Partners
- Field Engineer
- Server Administrator
- Network Manager
- Storage Administrator
- Cisco integrators and partners

PRE-REQUISITES

To fully benefit from this course, you should have the following knowledge and skills:

- Understanding of networking protocols, routing, and switching
- Familiarity with Cisco Ethernet switching products
- Understanding of Cisco data center architecture
- Familiarity with virtualization fundamentals

These are the recommended Cisco learning offerings that may help you meet these prerequisites:

- Implementing and Administering Cisco Solutions (CCNA)
- Understanding Cisco Data Center Foundations (DCFNDU)
- Introducing Cisco Data Center Networking (DCICN) v6.2
- Introducing Cisco Data Center Technologies (DCICT) v6.2

MODULES

Module 1: Introducing Cisco ACI Fabric Infrastructure and Basic Concepts

- What Is Cisco ACI?
- Cisco ACI Topology and Hardware
- Cisco ACI Object Model
- Faults, Event Record, and Audit Log
- Cisco ACI Fabric Discovery
- Cisco ACI Access Policies

Module 2: Describing Cisco ACI Policy Model Logical Constructs

- Cisco ACI Logical Constructs
- Tenant
- Virtual Routing and Forwarding
- Bridge Domain
- Endpoint Group
- Application Profile
- Tenant Components Review
- Adding Bare-Metal Servers to Endpoint Groups
- Contracts

Module 3: Describing Cisco ACI Basic Packet Forwarding

- Endpoint Learning
- Basic Bridge Domain Configuration

Module 4: Introducing External Network Connectivity

- Cisco ACI External Connectivity Options
- External Layer 2 Network Connectivity
- External Layer 3 Network Connectivity

Module 5: Introducing VMM Integration

- VMware vCenter VDS Integration
- Resolution Immediacy in VMM
- Alternative VMM Integrations

Module 6: Describing Layer 4 to Layer 7 Integrations

- Service Appliance Insertion Without ACI L4-L7 Service Graph
- Service Appliance Insertion via ACI L4-L7 Service Graph
- Service Graph Configuration Workflow
- Service Graph PBR Introduction

Module 7: Explaining Cisco ACI Management

- Out-of-Band Management
- In-Band Management
- Syslog
- Simple Network Management Protocol
- Configuration Backup
- Authentication, Authorization, and Accounting
- Role-Based Access Control
- Cisco ACI Upgrade
- Collect Tech Support

Lab Outline

- Validate Fabric Discovery
- Configure Network Time Protocol (NTP)
- Create Access Policies and Virtual Port Channel (vPC)
- Enable Layer 2 Connectivity in the Same Endpoint Group(EPG)
- Enable Inter-EPG Layer 2 Connectivity
- Enable Inter-EPG Layer 3 Connectivity
- Compare Traffic Forwarding Methods in a Bridge Domain
- Configure External Layer 2 (L2Out) Connection
- Configure External Layer 3 (L3Out) Connection
- Integrate Application Policy Infrastructure Controller(APIC) With VMware vCenter Using VMware Distributed Virtual Switch (DVS)

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