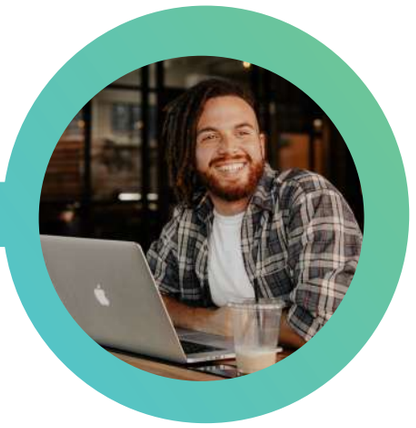
Implementing Cisco Application Centric Infrastructure



DCACI

COURSE OVERVIEW

This five-day course helps you prepare to take the exam, Implementing Cisco Application Centric Infrastructure (300-620 DCACI), which leads to CCNP Data Center and Cisco Certified Specialist – Data Center ACI Implementation certifications.

The Implementing Cisco Application Centric Infrastructure (DCACI) course will show you how to deploy and manage the Cisco Nexus 9000 Series Switches in Cisco Application Centric Infrastructure (Cisco ACI) mode. The course gives you the knowledge and skills 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 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.

The course qualifies for 40 Cisco Continuing Education credits (CE) towards recertification.

PREREQUISITES

The knowledge and skills that the learner should have before attending this course are as follows:

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

WHO SHOULD ATTEND

The primary audience for this course is as follows:

- 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

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COURSE OBJECTIVES

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

- 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

This course will help you:

- Gain skills and hands-on practice implementing Cisco Nexus 9000 Series Switches in ACI mode
- Prepare for the Implementing Cisco Application Centric Infrastructure (300-620 DCACI) exam
- Qualify for professional-level and expert-level data center job roles

COURSE OUTLINE

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

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LAB OUTLINE

Labs are designed to assure learners a whole practical experience, through the following practical activities:

- Lab 0: Accessing the NterOne Lab Devices
- Lab 1: Validate Fabric Discovery
- Lab 2: Configure NTP
- Lab 3: Create Access Points and vPC
- Lab 4: Enable Layer 2 Connectivity in the same EPG
- Lab 5: Integrate Cisco APIC with VMware vCenter using VMware VDS
- Lab 6: Enable inter-EPG Layer 2 Connectivity
- Lab 7: Enable Inter-EPG Layer 3 Connectivity
- Lab 8: Configure External Layer 2 Connection
- Lab 9: Configure External Layer 3 (L3Out) Connection

NterOne ACI Bonus Labs

- Lab 10: Monitor and Diagnosing ACI
- Lab 11: Use Visore to Explore an ACI Tenant
- Lab 12: Configure Tenant Span
- Lab 13: Configure RBAC using Local and Radius Users
- Lab 14: Configure the APIC using the ACI Cobra SDK (Python)
- Lab 15: Configure the APIC using the Cisco APIC REST to Python Adapter (ARYA)

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