

Cisco® Implementing Cisco® Application Centric Infrastructure v1.0 (DCACI)

Overview

The Implementing Cisco Application Centric Infrastructure (DCACI) v1.0 course shows you how to deploy and manage the Cisco® Nexus® 9000 Series Switches in Cisco Application Centric Infrastructure (Cisco ACI®) mode. 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.

Prerequisite Comments

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

Target Audience

- Network Designers
- Network Administrators
- Network Engineers
- Systems Engineers
- Data Center Engineers
- Consulting Systems Engineers
- Technical Solutions Architects
- Cisco Integrators/Partners
- Field Engineers
- Server Administrators
- Network Managers
- Storage Administrators
- Cisco integrators and partners

Course Objectives

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

Course Outline

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

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

3 - Describing Cisco ACI Basic Packet Forwarding

Endpoint Learning
Basic Bridge Domain Configuration Knob

4 - Introducing External Network Connectivity

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

5 - Introducing VMM Integration

VMware vCenter VDS Integration
Resolution Immediacy in VMM
Alternative VMM Integrations

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

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

8 - 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)

Related Courses, Certifications, Exams

- Cisco® Understanding Cisco® Data Center Foundations v1.0 (DCFNDU)
- Cisco® Implementing and Administering Cisco® Solutions v1.0 (CCNA)