FIREFLY

Implementing Cisco Application Centric Infrastructure–Advanced

DURATION: 5 DAYS COURSE CODE: DCACIA FORMAT: LIVE/VIRTUAL

COURSE DESCRIPTION

The Implementing Cisco Application Centric Infrastructure–Advanced (DCACIA) v1.0 course shows you how to implement and use the advance features of the Cisco® Nexus® 9000 Series Switches in Cisco Application Centric Infrastructure (Cisco ACI®) mode. The course gives you the knowledge and skills to understand, configure, and manage Cisco Nexus 9000 Series Switches in ACI mode, how to implement traditional networks in Cisco ACI, and how to implement Cisco ACI Multi-Pod and Multi-Site deployments. You will gain hands-on practice implementing advanced ACI capabilities such as Rogue Endpoint Feature, Transit Routing, VRF Route Leaking, Contracts and Zoning Rules, Policy Based Redirect to Layer 4–7 Service Node, Multi-Pod Fabric and Cisco ACI Multi-Site Orchestrator.

This course will help you:

- Gain advanced skills and gain hands-on practice implementing Cisco Nexus 9000 Series Switches in ACI mode
- Qualify for professional-level and expert-level data center job roles

LEARNING OBJECTIVES

Explain Cisco ACI advanced fabric packet forwarding

Explain advanced ACI policy and tenant configuration

Describe Cisco ACI Multi-Pod deployment

Explain the details and consideration of implementing and integrating traditional network with Cisco ACI

Describe Cisco ACI Service Graph Policy-Based Redirect (PBR)

Describe Cisco ACI Multi-Site deployment

WHO SHOULD ATTEND

Network designer
Network administrator
Network engineer
Systems engineer
Data center engineer
Consulting systems engineer
Technical solutions architect
Field engineer
Server administrator
Network manager
Storage administrator
Cisco integrators and partners

PREREQUISITES

Basic understanding of Cisco ACI

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 Cisco Application Centric Infrastructure (DCACI) v1.0
- Implementing and Administering Cisco Solutions (CCNA®) v1.0
- Understanding Cisco Data Center Foundations (DCFNDU) v1.0
- Introducing Cisco Data Center Networking (DCICN) v6.2
- Introducing Cisco Data Center Technologies (DCICT) v6.2
- Interconnecting Cisco Networking Devices: Accelerated (CCNAX) or Interconnecting Cisco Networking Devices Part 1 (ICND1) and Interconnecting Cisco Networking Devices Part 2 (ICND2)

COURSE OUTLINE

1. Cisco ACI Advanced Packet Forwarding

- Packet Forwarding Between Leaf Switches
- Endpoint Learning
- Network Interface Card (NIC) Teaming to ACI Fabric
- Endpoint Learning Optimizations
- Endpoint Loop Protection
- Rogue Endpoint Control

2. Using Advanced Cisco ACI Policy and Tenant Configuration

- Layer 3 Outside Transit Routing
- Using Tenant Common for Shared Services
- Using Virtual Routing and Forwarding (VRF) Route Leaking for Shared Services
- Using Layer 3 Outside configuration policy (L3Out) VRF Route Leaking for Shared Services
- Detailed Contract Architecture with pcTag
- Contract with vzAny
- Contract Preferred Group

3. Implementing Traditional Network in Cisco ACI

- Integrating Switched Network with Cisco ACI
- Migrating Existing Switched Network to Cisco ACI
- Network- vs. Application-Centric Deployment Models

4. Cisco ACI Service Graph PBR

- Service Graph PBR Overview
- PBR End-to-End Packet Flow
- Service Graph PBR Requirements and Topologies
- Service Graph PBR Tracking Options

5. Cisco ACI Multi-Pod Deployment

- Cisco ACI Multi-Pod Overview
- Inter-Pod Network Overview
- Multi-Pod Provisioning and Packet Flow Between Pods
- Connectivity to External L3 Networks
- Service Node Integration Considerations
- Service Graph Considerations

6. Cisco ACI Multi-Site Deployment

- Cisco ACI Multi-Site Overview
- Cisco ACI Multi-Site Orchestrator
- Inter-Site Network Overview
- Tenant Configuration Deployment from Multi-Site Orchestrator (MSO)
- Packet Flow Between Sites
- Multi-Site Stretched Components
- Multi-Site vs Multi-Pod Comparison