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Learning Style: On Demand

Technology: Cisco

Difficulty: Intermediate

Course Duration: 40 Hours

Implementing Cisco Application Centric Infrastructure - Advanced (DCACIA) v1.0 - On Demand

Course Information

About this course:

This course builds skills in you 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 manage, understand and configure Cisco Nexus 9000 Series Switches in ACI mode. This is will enable you to implement Cisco ACI Multi-Pod and Multi-Site deployments, and traditional networks in Cisco ACI. Hands-on training will be provided to 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.

Course Objective:

After taking this course, you should be able to:

- Explain Cisco ACI advanced fabric packet forwarding
- Explain the details and consideration of implementing and integrating traditional network with Cisco ACI
- Explain advanced ACI policy and tenant configuration
- Describe Cisco ACI Service Graph Policy-Based Routing (PBR)
- Describe Cisco ACI Multi-Site deployment
- Describe Cisco ACI Multi-Pod deployment

Audience:

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

Prerequisite:

You should have the following knowledge and skills to fully benefit from this course:

- Understanding of Cisco data center architecture
- Familiarity with virtualization fundamentals
- Basic understanding of Cisco ACI

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

- 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
- Implementing Cisco Application Centric Infrastructure (DCACI) v1.0
- Implementing and Administering Cisco Solutions (CCNA) v1.0
- Understanding Cisco Data Center Foundations (DCFNDU) v1.0
- Networking Devices Part 1 (ICND1) and Interconnecting Cisco Networking Devices Part 2 (ICND2)

Course Outline:

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

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

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

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

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

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