Implementing Cisco Application Centric Infrastructure– Advanced (DCACIA)

Course Duration: 40 Hours **Course code: DCACIA**

1. Course Overview

The *DCACIA - Implementing Cisco Application Centric Infrastructure– Advanced v1.2* course gives you the knowledge and skills to understand, configure, and manage Cisco Nexus 9000 Series Switches in Cisco Application Centric Infrastructure (Cisco ACI) mode, how to implement traditional networks in Cisco ACI, and how to implement Cisco ACI Multi-Pod and Multi-Site deployments.

2. What you'll learn?

- 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
- 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

3. Target Audience

- Network designer
- Network administrator
- Network engineer

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

4. Pre-Requisites

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

Basic understanding of Cisco ACI

Understanding of Cisco data center architecture

Familiarity with virtualization fundamentals

5. Course content

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