Implementing Cisco Application Centric Infrastructure - Advanced

Duration: 5 Days **Course Code: DCACIA** **Version: 1.2** **Delivery Method: Company Event**

Overview:

The Implementing Cisco Application Centric Infrastructure–Advanced (DCACIA) course shows you how to integrate the capabilities of 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 providing enhanced management and policy framework, along with the protocols used in the underlying fabric. The course also covers how to use Cisco ACI as a policy-driven solution that integrates software and hardware, and how to implement Cisco ACI Multi-Pod and Nexus Dashboard Orchestrator (NDO) 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® Nexus Dashboard Orchestrator.

This course earns you 40 Continuing Education (CE) credits towards recertification.

This course will help you:
Learn best practices for implementing and managing Cisco Nexus 9000 Series Switches in Cisco ACI mode
Leverage the integration software and hardware solutions to expand the capabilities of data center and cloud networks
Maximize the benefits of an application-centric approach to deliver automation and flexibility in IT services, and automate fabric deployment and configuration
Prepare for 300-630 Implementing Cisco Application Centric Infrastructure-Advanced (DCACIA) exam which counts toward the CCNP Data Center certification

Company Events

These events can be delivered exclusively for your company at our locations or yours, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

Target Audience:

Engineers looking to learn advanced ACI skills for implementation on the Cisco Nexus 9000 Series Switch running in ACI Mode.

Objectives:

- **After completing this course, you should be able to:**
- 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

Prerequisites:

Attendees should meet the following prerequisites:

- Basic understanding of Cisco ACI
- Understanding of Cisco data center architecture
- Familiarity with virtualization fundamental
- CCNA - Implementing and Administering Cisco Solutions
- DCFNDU - Understanding Cisco Data Center Foundations
- DCACI - Implementing Cisco Application Centric Infrastructure

Testing and Certification

Recommended as preparation for the following exams:

- **300-630 -** Implementing Cisco Application Centric Infrastructure-Advanced Exam - One of the CCNP DC Concentrations

Content:

Describing Cisco ACI Advanced Packet Forwarding

- Packet Forwarding Between Leaf Switches
- Endpoint Learning
- 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 VRF Route Leaking for Shared Services
- Using L3Out VRF Route Leaking for Shared Services
- Detailed Contract Architecture with pcTag
- Contract with vzAny
- Contract Preferred Group
- Contract Priorities

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

Describing 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

Describing 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 Layer 3 Networks
- Service Node Integration Considerations
- Service Graph Considerations

Describing Cisco ACI MultiSite Deployment

- Cisco ACI MultiSite Overview
- Cisco Nexus Dashboard Considerations
- Intersite Network Overview
- Tenant Configuration Deployment from NDO
- Packet Flow Between Sites
- MultiSite Stretched Components
- MultiSite Vs Multi-Pod Comparsion

Labs

- Examine Local and Remote Endpoint Learning
- Verify Bounce Entries
- Validate IP Learning
- Mitigate IP and MAC Flapping with the Rogue Endpoint Feature
- Enable Transit Routing
- Implement VRF Route Leaking
- Configure VRF Route Leaking with L3Out
- Examine Contracts and Zoning Rules
- Configure Policy-Based Redirect to Layer 4–7 Service Node
- Deploy Multi-Pod Fabric
- Provision Policies with Nexus Dashboard Orchestrator

Further Information:

For More information, or to book your course, please call us on 0800/84.009

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