Implementing Cisco Application Centric Infrastructure - Advanced

Duration: 180 Days   **Course Code: DCACIA**   **Version: 1.2**   **Delivery Method: Elearning (Self-paced)**

Overview:

The Implementing Cisco Application Centric Infrastructure–Advanced (DCACIA) course shows you how to implement and use the advanced 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.

Duration: This course is the elearning equivalent of a 5 day ILT course.
e-Learning

Interactive self-paced content that provides flexibility in terms of pace, place and time to suit individuals and organisations. These resources also consist of online books, educational podcasts and vodcasts, and video-based learning.

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 fundamentals
- 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:

- There are no exams currently aligned to this course

Follow-on-Courses:

- DCACIT - Troubleshooting Cisco Application Centric Infrastructure

Content:

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

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 Cisco ACI Multi-Site Orchestrator

Further Information:

For More information, or to book your course, please call us on 00 20 (0) 2 2269 1982 or 16142

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