Implementing Cisco Application Centric Infrastructure

Duration: 5 Days **Course Code: DCACI** **Version: 1.2**

Overview:

The Implementing Cisco Application Centric Infrastructure course shows you how to deploy and manage 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, how to connect the Cisco ACI fabric to external networks and services, and fundamentals of Virtual Machine Manager (VMM) integration. You will gain hands-on practice implementing key capabilities such as fabric discovery, policies, connectivity, VMM integration, and more. This course is based on ACI Software v5.2 release.

This course helps you prepare to take the exam, **Implementing Cisco Application Centric Infrastructure** (300-620 DCACI), which leads to **CCNP® Data Center** and **Cisco Certified Specialist – Data Center ACI Implementation** certifications.

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

Target Audience:

Individuals who need to understand how to configure and manage a data center network environment with the Cisco Nexus 9000 Switch operating in ACI Mode.

Objectives:

- **After completing this course, you should be able to:**
- Describe Cisco ACI Fabric Infrastructure and basic Cisco ACI concepts
- Describe Cisco ACI policy model logical constructs
- Describe Cisco ACI basic packet forwarding
- Describe external network connectivity
- Describe VMM Integration
- Describe Layer 4 to Layer 7 integrations
- Explain Cisco ACI management features

Prerequisites:

Attendees should meet the following prerequisites:

- Understanding of networking protocols, routing, and switching
- Familiarity with Cisco Ethernet switching products
- Understanding of Cisco data center architecture
- Familiarity with virtualization fundamentals
- CCNA - Implementing and Administering Cisco Solutions
- DCFNDU - Understanding Cisco Data Center Foundations

Testing and Certification

Recommended as preparation for the following exams:

- **300-620 DCACI** - Implementing Cisco Application Centric Infrastructure

Follow-on-Courses:

The following courses are recommended for further study:

- DCACIA - Implementing Cisco Application Centric Infrastructure - Advanced
- DCACIO - Cisco Application Centric Infrastructure Operations and Troubleshooting
- DCACIT - Troubleshooting Cisco Application Centric Infrastructure

Content:

Introducing Cisco ACI Fabric Infrastructure and Basic Concepts

- What Is Cisco ACI?
- Cisco ACI Topology and Hardware
- Cisco ACI Object Model
- Faults, Event Record, and Audit Log
- Cisco ACI Fabric Discovery
- Cisco ACI Access Policies

Describing Cisco ACI Policy Model Logical Constructs

- Cisco ACI Logical Constructs
- Tenant
- Virtual Routing and Forwarding
- Bridge Domain
- Endpoint Group
- Application Profile
- Tenant Components Review
- Contracts

Describing Cisco ACI Basic Packet Forwarding

- Endpoint Learning
- Basic Bridge Domain Configuration Knob

Introducing External Network Connectivity

- Cisco ACI External Connectivity Options
- External Layer 2 Network Connectivity
- External Layer 3 Network Connectivity

Introducing VMM Integration

- VMware vCenter VDS Integration
- Resolution Immediacy in VMM
- Alternative VMM Integrations

Describing Layer 4 to Layer 7 Integrations

- Service Appliance Insertion Without ACI L4-L7 Service Graph
- Service Appliance Insertion via ACI L4-L7 Service Graph
- Service Graph Configuration Workflow
- Service Graph PBR Introduction

Explaining Cisco ACI Management

- Out-of-Band Management
- In-Band Management
- Fabric-Wide System Settings
- Syslog
- Simple Network Management Protocol
- Configuration Backup
- Authentication, Authorization, and Accounting
- Role-Based Access Control
- Cisco ACI Upgrade
- Collect Tech Support

Labs

- Validate Fabric Discovery
- Configure Network Time Protocol (NTP)
- Create Access Policies and Virtual Port Channel (vPC)
- Enable Layer 2 Connectivity in the Same Endpoint Group (EPG)
- Enable Inter-EPG Layer 2 Connectivity
- Enable Inter-EPG Layer 3 Connectivity
- Compare Traffic Forwarding Methods in a Bridge Domain
- Configure External Layer 2 (L2Out) Connection
- Configure External Layer 3 (L3Out) Connection
- Integrate Cisco Application Policy Infrastructure Controller (APIC) With VMware vCenter Using VMware Distributed Virtual Switch (DVS)

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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