

Implementing Cisco Application Centric Infrastructure (DCACI)

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In this Implementing Cisco Application Centric Infrastructure course introduces Cisco Application Centric Infrastructure (ACI) and focuses on core concepts required to understand, deploy, and operate an ACI-based data center. It begins with an overview of ACI fabric architecture, including the leaf-and-spine topology, hardware components, and the role of the Application Policy Infrastructure Controller (APIC).

The course then explains the Cisco ACI policy model, logical constructs, and tenants, followed by basic packet forwarding concepts such as endpoint learning and bridge domain behavior. External connectivity options, including Layer 2 and Layer 3 integration with non-ACI networks, are covered along with virtualization integration using VMware vCenter and VMware Distributed Virtual Switch.

Learners are also introduced to Layer 4-7 service integration and ACI management concepts, including in-band and out-of-band management. Hands-on labs reinforce these topics through fabric validation, policy configuration, connectivity testing, external network integration, and APIC integration with VMware vCenter, providing practical experience with real-world Cisco ACI deployments.

How you'll benefit

This class will help you:

- Gain the skills and hands-on practice integrating the enhanced, automated capabilities of Cisco Nexus 9000 Series Switches in ACI mode for quicker application deployment
- Get the knowledge for protocols, solutions, and designs to acquire professional-level and expert-level data center job roles
- Earn 40 CE credits toward recertification

Why Attend with Current Technologies CLC

- Our Instructors are in the top 10% rated by Cisco
- Our Lab has a dedicated 1 Gig Fiber Connection for our Labs
- Our Labs run up to Date Code for all our courses

Who Should Attend

The primary audience for this course is as follows:

- Network Designer
- Network Administrator
- Network Engineer
- Systems Engineer
- Data Center Engineer
- Consulting Systems Engineer
- Technical Solutions Architect
- Cisco Integrators/Partners

Course Duration

5 days

Course Price

\$4,595.00 or 46 CLCs

Methods of Delivery

- Instructor Led
- Virtual ILT
- On-Site

- Field Engineer
- Server Administrator
- Network Manager
- Storage Administrator
- Program Manager
- Project Manager

Prerequisites

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

- To fully benefit from this course, you should have the following knowledge and skills:
- Understanding of networking protocols, routing, and switching
- Familiarity with Cisco Ethernet switching products
- Understanding of Cisco data center architecture
- Familiarity of virtualization fundamentals

OUTLINE

Module 1: Introducing Cisco ACI Fabric Infrastructure and Basic Concepts

- What Is Cisco ACI?
- Cisco ACI Topology and Hardware

Module 2: Describing Cisco ACI Policy Model Logical Constructs

- Cisco ACI Logical Constructs
- Tenant

Module 3: Describing Cisco ACI Basic Packet Forwarding

- Endpoint Learning
- Basic Bridge Domain Configuration Knob

Module 4: Introducing External Network Connectivity

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

Module 5: Introducing VMM Integration

- VMware vCenter VDS Integration
- Resolution Immediacy in VMM

Module 6: 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

Module 7: Explaining Cisco ACI Management

- Out-of-Band Management
- In-Band Management

LAB OUTLINE

- Lab 1: Validate Fabric Discovery
- Lab 2: Configure Network Time Protocol (NTP)
- Lab 3: Create Access Policies and Virtual Port Channel (vPC)
- Lab 4: Enable Layer 2 Connectivity in the Same Endpoint Group (EPG)
- Lab 5: Enable Inter-EPG Layer 2 Connectivity

- Lab 6: Enable Inter-EPG Layer 3 Connectivity
- Lab 7: Compare Traffic Forwarding Methods in a Bridge Domain
- Lab 8: Configure External Layer 2 (L2Out) Connection
- Lab 9: Configure External Layer 3 (L3Out) Connection
- Lab 10: Integrate Application Policy Infrastructure Controller (APIC) With VMware vCenter Using VMware Distributed Virtual Switch (DVS)