

Implementing Cisco Application Centric Infrastructure–Advanced (DCACIA)

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In this Implementing Cisco Application Centric Infrastructure–Advanced course builds on foundational Cisco ACI knowledge by exploring advanced packet forwarding behaviors, complex policy design, multi-site scalability, and centralized operations. It is intended for professionals who need deeper visibility into how Cisco ACI handles traffic flows, integrates with traditional networks, and supports large-scale, distributed data center deployments.

The course begins with advanced packet forwarding concepts, focusing on how traffic is forwarded between leaf switches and how local and remote endpoint learning occurs across the fabric. It then expands into advanced policy and tenant configuration, covering Layer 3 outside transit routing and the use of the common tenant to provide shared services across multiple tenants in a controlled and scalable manner.

Next, the course addresses integration and migration strategies, showing how traditional switched networks can be integrated with Cisco ACI and how existing environments can be migrated without disrupting production traffic. Service Graph Policy-Based Redirect (PBR) is then introduced to explain how Layer 4-7 services are inserted into traffic flows and how packets traverse service nodes end to end under policy control.

The course also covers Cisco ACI Multi-Pod deployments, explaining how multiple ACI pods operate as a single logical fabric and how the inter-pod network enables resilient, geographically distributed data centers. Finally, learners are introduced to Cisco Nexus Dashboard and Nexus Dashboard Orchestrator, which provide centralized visibility, policy orchestration, and lifecycle management across multiple ACI fabrics.

Hands-on labs reinforce these advanced concepts by examining endpoint learning behavior, validating routing and zoning policies, mitigating rogue endpoints, implementing transit routing and VRF route leaking, deploying service graphs, building multi-pod fabrics, and provisioning policies through Cisco Nexus Dashboard Orchestrator.

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

Course Duration

5 days

Course Price

\$4,495.00 or 45 CLCs

Methods of Delivery

- Instructor Led
- Virtual ILT
- On-Site

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 Designers
- Network Administrators
- Network Engineers
- Systems Engineers
- Data Center Engineers
- Consulting Systems Engineers
- Technical Solutions Architects
- Cisco Integrators/Partners
- Field Engineers
- Server Administrators
- Network Managers
- Storage Administrators
- Cisco Integrators and Partners

Prerequisites

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 with virtualization fundamentals

OUTLINE

Module 1: Cisco ACI Advanced Packet Forwarding

- Packet Forwarding Between Leaf Switches
- Endpoint Learning

Module 2: Using Advanced Cisco ACI Policy and Tenant Configuration

- Layer 3 Outside Transit Routing
- Using Tenant Common for Shared Services

Module 3: Implementing Traditional Network in Cisco ACI

- Integrating Switched Network with Cisco ACI
- Migrating Existing Switched Network to Cisco ACI

Module 4: Cisco ACI Service Graph PBR

- Service Graph PBR Overview
- PBR End-to-End Packet Flow

Module 5: Cisco ACI Multi-Pod Deployment

- Cisco ACI Multi-Pod Overview
- Inter-Pod Network Overview

Module 6: Cisco Nexus Dashboard Deployment

- Cisco Nexus Dashboard Overview
- Cisco Nexus Dashboard Orchestrator

LAB OUTLINE

- Lab 1: Examine Local and Remote Endpoint Learning
- Lab 2: Verify Bounce Entries

- Lab 3: Validate IP Learning
- Lab 4: Mitigate IP and MAC Flapping with the Rogue Endpoint Feature
- Lab 5: Enable Transit Routing
- Lab 6: Implement VRF Route Leaking