The bridge to possible

Cisco Application Centric Infrastructure Operations and Troubleshooting (DCACIO) v4.2

What you'll learn in this course

The **Cisco Application Centric Infrastructure Operations and Troubleshooting (DCACIO)** v4.2 course shows you how to manage, monitor, and troubleshoot Cisco® Nexus® 9000 Series Switches in Application-Centric Infrastructure (ACI) mode. Through expert instruction and hands-on practice, you will learn about operational tools, best practices, caveats, and practice troubleshooting common issues on a live fabric. Based on lessons learned in wide range of production deployments, this course gives you the real-world knowledge and skills to boost operational efficiencies in your own deployment.

Course duration

- Instructor-led training: 3 days in the classroom
- Virtual instructor-led training: 3 days of web-based classes

How you'll benefit

This course will help you:

- Quickly ramp up on Cisco ACI® operational knowledge, skills, and best practices honed from real-world production deployments
- Gain hands-on troubleshooting techniques
- Optimize the benefits of using Cisco ACI, such as streamlined operations

Technology areas

- Data center

Who should enroll

IT professionals who operate and support a Cisco ACI data center network, including:

- Data center engineers
- Field engineers
- Network engineers
- Systems engineers

How to enroll

Instructor-led training

- Find a class at the [Cisco Learning Locator](#).
- Arrange training at your location through [Cisco Private Group Training](#).

Course details

Objectives

After taking this course, you should be able to:

- Operationalize and troubleshoot the ACI fabric
- Understand Cisco Application Policy Infrastructure Controller (APIC) and its monitoring, management, and troubleshooting capabilities
- Avoid common mistakes and recognize common symptoms

Prerequisites

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

- Completion of Cisco ACI Field Engineer Essentials course
- Familiarity with data center infrastructure operations
- Familiarity with management of Cisco data center switches
- Understanding of basic network troubleshooting and basic programming
- System or network administration (Linux or Windows)
- Data center operations

The following course will provide you with the required ACI skills:

- **Implementing Cisco Application-Centric Infrastructure (DCACI)**

Outline

- Cisco ACI Overview
  - Cisco ACI Topology and Hardware
  - Cisco ACI Fabric Discovery and Initialization
  - Cisco ACI Access Policies
  - Cisco ACI Configuration Review
  - Creating a Base Configuration
- Cisco ACI Configuration Management
  - Installation Checklist
  - Cisco Hardware Installation and Fabric Discovery
  - Cisco ACI Firmware Upgrades
  - Cisco Smart Licensing
  - Import / Export
  - Configuration Snapshots and Rollbacks
  - Configuration Zones
  - Cisco ACI Fabric Rebuild or Recovery
  - Converting Cisco NX-OS mode to ACI mode

- ◦ Cisco APIC Management Access Protocols
- ◦ General Recommended Practices from the Technical Assistance Center TAC
- Cisco ACI-OT Monitoring
  - ◦ Cisco ACI Operation Tools
  - ◦ Cisco ACI Syslog Configuration
  - ◦ Viewing Events and Logs
- Troubleshooting Cisco ACI
  - ◦ Health Scores
  - ◦ Troubleshooting Cisco APIC
  - ◦ Faults and Audit Logs in ACI

Lab outline

- Connect to Remote Lab Environment
- Create a Tenant
- Configure vCenter Integration
- Configure Layer 2 Physical Domain
- Connect Layer 3 Outside Using Open Shortest Path First (OSPF)
- Configure Syslog
- Configure Simple Network Management Protocol (SNMP)
- Configure ELAM Assistant
- Employ Cisco Network Insights
- Configure Contract Deny Logs and Tenant Atomic Counters
- Use Visore to Explore Tenant
- Troubleshoot Using CLI
- Configure Tenant SPAN
- Troubleshooting Challenge