

Designing Cisco Application Centric Infrastructure (DCACID) v1.0

What you'll learn in this course

The **Designing Cisco Application Centric Infrastructure (DCACID) v1.0** is a 5-day product training course that provides you with the knowledge and skills to understand and utilize a programmable fabric design built on Cisco Nexus® 9000 Series Switches in Application-Centric Infrastructure (ACI) mode. This course is a deep dive into Cisco ACI design, covering design considerations and best practices, so you can build solid ACI solutions and avoid common mistakes that can impact the network infrastructure. With a focus on various design use cases, this course provides information that can help you practice design decisions, validate your designs, and apply best practices while using Cisco ACI in your multiservice or cloud data centers.

Course duration

- Instructor-led training: 5 days in the classroom and hands-on lab practice
- Virtual instructor-led training: 5 days of web-based classes and hands-on lab practice

How you'll benefit

This course will help you:

- Develop an understanding of programmable fabric designs built on Cisco Nexus 9000 Series Switches in ACI mode
- Build the knowledge and skills necessary to build solid ACI solutions and avoid common mistakes

Who should enroll

This course is designed for the following roles:

- Network designer
- Network engineer
- Systems engineer
- Data center engineer
- Consulting systems engineer
- Technical solutions architect
- Cisco integrators/partners

How to enroll

Instructor-led training

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

Technology areas

- Networking
- Data center

Course details

Prerequisites

Before taking this course, you should have:

- Familiarity with Cisco Application Centric Infrastructure implementations
- Familiarity with data center infrastructure operations
- Familiarity with the management of Cisco data center switches
- Familiarity with virtualization fundamentals

These recommended Cisco learning offerings may help students meet these prerequisites:

- **Implementing and Administering Cisco Solutions (CCNA)**
- **Understanding Cisco Data Center Foundations (DCFNDU)**
- **Implementing Cisco Application-Centric Infrastructure (DCACI)**

Objectives

After taking this course, you should be able to:

- Design Cisco ACI access policies according to best practices
- Use fabric system settings
- Design Cisco ACI logical components
- Design the migration of IP and logical components from an existing data center to Cisco ACI
- Design Cisco ACI physical structure
- Migrate existing data center connectivity and physical components from an existing environment to Cisco ACI
- Design Cisco ACI external Layer 3 connectivity and Cisco ACI Layer 4–7 service insertion, including PBR-based service redirection
- Design the L4-L7 service insertion in single-pod Cisco ACI, by evaluating the available options and choosing the optimal connectivity flow
- Design L4-L7 service insertion in Cisco ACI Multi-Pod
- Design a transit routing solution
- Design service sharing using vzAny
- Build a migration plan for Layer 2 and Layer 3 connectivity, including L3Outs and contracts
- Migrate vSphere compute environment to Cisco ACI
- Design QoS for interpod and intersite networks
- Design the DHCP Relay feature, SPAN feature, Port Tracking feature, Import/Export policies, and Snapshot/Rollback feature

Outline

- Designing Access Policies
- Using Fabric System Settings
- Designing Logical Components
- Use Case: Migration of IP and Logical Structure
- Designing Physical Structure
- Use Case: Migration of Connectivity and Physical Components
- Designing L3Outs and Service Insertion
- Use Case: Service Insertion in Single Pod
- Use Case: Service Insertion in Cisco ACI Multi-Pod
- Use Case: L3Out Transit Routing
- Use Case: Shared Services vzAny and Endpoint Security Groups
- Use Case: Migration of Layer 2 and Layer 3 Connectivity
- Use Case: VMware Data Center Migration to Cisco ACI
- Use Case: IPN and ISN QoS
- Use Case: DHCP Relay and SPAN