

Course Outline

Building the Cisco Cloud with Application Centric Infrastructure Course CLDACI: 5 days Instructor Led

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About this course

Building the Cisco Cloud with Application Centric Infrastructure (CLDACI) v1.0 is a new 5-day ILT course designed to help students prepare for the CCNP Cloud certification, a professional level certification specializing in Cloud technologies. Our online Cisco training courses are designed and developed with the learner in mind, making sure that the material covers all of the information you'll need to know in order to [complete your Cisco Cloud Certification](#). This Cisco CCNP course extensively covers the process of implementing public, private, and hybrid cloud based on Cisco ACI. You'll complete this CCNP training with the knowledge needed to advance your career and work in the Cisco Cloud environment.

Audience profile

- Network Administrator
- Server Administrator
- Network Engineer
- Systems Engineer
- Technical Solutions Architect

At course completion

After completing this course, students will be able to:

- Describe Cisco Application Centric Infrastructure (ACI) fundamentals
- Integrate Cisco ACI with VM managers
- Implement application policies
- Configure Layer 4 to Layer 7 services
- Extend Cisco ACI to external Layer 3 and Layer 4 connections
- Configure orchestration and automation tools, protocols and application programming interfaces (APIs)

Course Outline:

Module 1: Implement Cisco ACI Fundamentals

- ACI key features
- Nexus 9000 product family
- ACI management networks
- Virtual eXtensible LAN
- API controller
- Tenants
- DHCP relay
- Authentication, authorization and RBAC
- Fabric and access policies

Course Outline

- ACI VMM domains
- Hypervisor normalization
- ACI and VMware VDS
- ACI applications
- Policy model
- Policy driven data center design advantages
- Application profiles
- ACI fabric gateway
- Load balancing

Module 2: Implement Cisco ACI Enhanced Features

- Port channels
- Configuring vPC in ACI
- Cisco application virtual switch (AVS)
 - Characteristics
 - Distributed firewall
 - Microsegmentation
 - Installation
 - Configuration
 - Verification
- Inter-tenant communication and contracts
- Layer 4 to layer 7 application profiles
- Layer 4 to layer 7 services programmability

Module 3: Configure Cisco ACI External Connections

- ACI external connections
- Access policies for L3-out
- L3-out configuration
- Layer 2 outside connections
- Layer 2 connection configurations

Module 4: Automate and Design Cisco ACI Deployment

- ACI programmability
- REST API
- Python programmability tools
- UCS director
- ACI migration
- Migration options

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Lab Outline:

- Implement Cisco ACI Fabric Connectivity for Virtual Machines
- Implement Application Policies
- Monitor Traffic with Atomic Counters
- Deploy vPC Connections to Hypervisors
- Deploy Cisco AVS and Microsegmentation
- Add Bare Metal Hosts and Implement Inter-Tenant Connectivity
- Integrate Cisco ASA Firewall in Cisco ACI Fabric
- Enable Connectivity to External Layer 3 Networks
- Enable Connectivity to External Layer 2 Networks
- Provision Cisco ACI Using Cisco UCS Director
- Program Cisco APIC Using Python and Arya (Optional)