

Course Outline

Advanced ACI Course ADVACI: 5 days Instructor Led

All Cisco courses are delivered by a Cisco Authorized Platinum Learning Partner

About this course

Advanced ACI is a 5-day course designed to help students understand new and advanced features of Cisco ACI 5.x with VMware v6.x that help simplify, scale, and optimize complex data center networking environments.

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
- Configure Complex External Routing (L3Out) Scenarios, including OSPF, BGP, VRF Leaking and Transit Routing
- Implement ACI Virtual Edge (AVE) with Distributed Firewall
- Deploy Remote Leaf
- Understand Advanced ACI Topics, such as Tenant SPAN
- Understand and Implement ACI Multi-site with Multi-site Orchestrator (MSO)

Course Outline

Module 1: Implement Cisco ACI Fundamentals

- ACI Topology
- ACI management networks
- Virtual eXtensible LAN (VXLAN)
- NTP Server on ACI Fabric Switches
- Whitelist Model

Module 2: Cisco ACI External Network Connectivity

- L3 Out
- ACI Physical and External Domains
- Route Reflection
- OSPF Route Redistribution
- ACI as a Transit Network

Module 3: Cisco Tenant Span

Course Outline

- Visibility and Troubleshooting
- SPAN to APIC

Module 4: Cisco vzAny

- vzAny
- Multisite Contracts

Module 5: Application Virtual Edge (AVE)

- Application Virtual Edge Architecture
- Microsegmentation
- AVE and Virtual Pod (vPOD)
- AVE L4-L7 Services
- vcplugin AVE Install / Upgrade / Uninstall / Migration
- vCenter Plugin – RBAC
- L4-7 Service Integration
- ACI Distributed Firewall
- ACI Service Graph

Module 7: Cisco ACI Logging

- Syslog
- Contract Logging
- ACI Permit/Deny Logging

Module 8: Implement Remote Leafs

- Remote Leaf Use Cases
- Physical Remote Leaf - Overview, Requirements and Basic Design
- Physical Remote Leaf - Discovery
- Physical Remote Leaf - Unicast
- Remote Leaf Multicast Forwarding Port channels
- Remote Leaf Deep Dive

Module 9: ACI Multi-site

- ACI Anywhere
- Multi Site Back to Back Spine
- L4-L7 Services in ACI Multi-Site
- ACI Multisite with MPOD
- ACI Multipod Multicast on BigSky Single Chip
- ACI Multisite - Multicast on BigSky Single Chip
- ACI Multi-Site & L4-L7 Service Integration

Lab Outline:

- Discovery Lab 0: Accessing the NterOne Lab Devices

Course Outline

- Discovery Lab 1: Validate Fabric Discovery for ACI v5
- Discovery Lab 2: Configure NTP
- Discovery Lab 3: Create Access Policies and vPC
- Discovery Lab 4: Enable Layer 2 Connectivity in the Same EPG
- Discovery Lab 5: Integrate APIC with VMware vCenter Using VMware VDS with Inter-EPG Connectivity
- Discovery Lab 6: Configure External Network Connectivity – Create Trunks to an External Switch
- Discovery Lab 7: Configure External Layer 3 Connectivity - OSPF Routing
- Discovery Lab 8: Configure VRF Leaking
- Discovery Lab 9: Configure Transit Routing
- Discovery Lab 10: Configure External Layer 3 Connectivity – BGP Routing
- Discovery Lab 11: Configure Tenant Span
- Discovery Lab 12: Configure ACI Virtual Edge (AVE)
- Discovery Lab 13: Distributed Firewall with AVE
- Discovery Lab 14: Configure Syslog
- Discovery Lab 15: Multi-Site Orchestrator User Setup
- Discovery Lab 16: APIC Infrastructure Verification
- Discovery Lab 17: Creating a Multi-Site Tenant
- Discovery Lab 18: ACI Multi-Site Use Cases
- Discovery Lab 19: IP Address Mobility across Two Availability Zones