
Troubleshooting the Cisco ACI Fabric

DURATION: 2 DAYS COURSE CODE: ACI-TSHOOT FORMAT: LECTURE/LAB

COURSE DESCRIPTION

This 2 day class explores the most common issues found within ACI and explains how to troubleshoot them. Students will be introduced to the concepts and principles of ACI with emphasis being placed on policy driven networking. Students will be familiarized with the tools built within ACI that enable inspection of overall health and possible failure scenarios.

This workshop is designed to provide an extensive hands-on experience in which you will be presented with failure scenarios, be asked to track down the source of failures, and then repair any failures found. You will explore methods for tracking failures to their root cause including topics which span across L2 and L3 as well as tenant issues, VMM domains, and the APIC.

WHO SHOULD ATTEND

This course is designed for engineers who are familiar with the concepts of ACI, and are knowledgeable in basic ACI configuration and operations.

PREREQUISITES

DCAC9K

LEARNING OBJECTIVES

- Explain the ACI policy-based networking model
- Explain the ACI fabric architecture
- Identify troubleshooting issues around the APIC
- Describe options for troubleshooting L2 and L3 forwarding within the ACI Fabric
- Discuss troubleshooting scenarios in the Common Tenant and Management Tenant
- Explain ways to rectify common VMM issues

COURSE OUTLINE

1. Introducing Cisco ACI

- ACI Concepts and Principles
- Tenants Contexts and Bridge Domains
- Endpoint Groups
- Application Profiles
- Contracts, Subjects, and Filters
- Endpoint Group Options
- Advantages of Policy-Driven Data Center Design

2. Describing the ACI Fabric

- Leaf and Spine Single-Site Topology
- The Use of Overlays in ACI
- Unicast Forwarding
- Health Scores
- Faults and Events
- Troubleshooting Tools and Wizard

3. APIC Troubleshooting

- APIC High Availability and Clustering
- Faults / Health Scores
- Policies and Contracts

4. L2 and L3 Troubleshooting

- Unicast Data Plane Forwarding and Reachability
- Bridged Connectivity to External Networks
- Routed Connectivity to External Networks

5. Tenant Troubleshooting

- Management Tenant
- Common Network Services

6. VMM Troubleshooting

- Virtual Machine Manager Insertion

DISCOVERY LABS

- 0: Accessing the Remote Lab Environment
- 1: Faults Have Been Raised in the APIC
- 2: Troubleshooting Policies and Contracts
- 3: Mapping Out Unicast Data Plane Reachability
- 4: Troubleshoot L2 Issues
- 5: Troubleshoot L3 Issues
- 6: Troubleshoot VMM Domains
- 7: Troubleshoot Fabric Access Policies
- 8: Troubleshooting Sets of Unknown Failures