

## ACI Operations and Troubleshooting (ACI OT)

### COURSE OVERVIEW:

This three-day ILT course is designed for Network Engineers who need to know how to operate and troubleshoot Data Center Network Infrastructure running Cisco ACI. This course will cover material from an Operations (Day 0/1/2/n) perspective, discussing best practices, caveats and common issues.

Incorporating the latest software, hardware, and techniques, this course dives deep into the wealth of management and troubleshooting capabilities in Cisco ACI. Students will practice on the whole range of operations tools, including configuration management, performance tracking, and troubleshooting. Lots of troubleshooting. On Day 3 the instructor will inject various faults into the lab fabric, and students will need to apply the lessons of this course to resolve the issues in a live Challenge Lab.

The curriculum is delivered as Just-In-Time learning, designed to provide Engineers just what they need to know, just when they need to know it. This is production-focused training, based on battle-tested lessons learned from over 100 production deployments.

### WHO WILL BENEFIT FROM THIS COURSE?

This course is for Network Engineers and support teams who need to support a Cisco ACI data center network.

### PREREQUISITES:

Students should have the following knowledge:

- Completion of one of the following courses:
- ACI Field Engineer Essentials
- ACI Field Engineer Implementation
- Configuring Cisco Nexus 9000 Series Switches in ACI Mode
- Or equivalent ACI experience
- Familiarity with Data Center infrastructure operations
- Familiarity with management of Cisco DC switches
- Understanding of basic network troubleshooting

### COURSE OBJECTIVES:

- Operationalize and troubleshoot the ACI Fabric
- Understand APIC and its monitoring, management and troubleshooting capabilities
- Avoid common mistakes and recognize common symptoms

## **COURSE OUTLINE:**

### **Module 1: ACI Overview**

- Cisco ACI Review
- Configuration Review

### **Module 2: ACI Configuration Management**

- Installation Checklist
- HW Installation and Fabric Discovery
- **LAB 1 – Create admin-level user account**
- ACI Firmware Upgrades
- Import / Export
- Configuration Snapshots and Rollbacks
- ACI Fabric Rebuild or Recovery
- Cluster Management
- Convert NXOS-mode to ACI-mode
- **LAB 2 – Configuration Restore**

### **Module 3: APIC Management Access Protocols and Interfaces**

- APIC Management Access Protocols
- APIC Interfaces
- APIC Basic GUI
- Exercise: APIC Basic GUI
- Visore
- Exercise: Using Visore in APIC
- CLI
- Exercise: CLI Show Commands
- Exercise: CLI moquery Commands

### **Module 4: Monitoring ACI**

- ACI Operation Always-On Tools
- Health Scores
- Faults in ACI
- Viewing Events and Logs
- Exercise: Viewing Audit Logs
- Syslog
- **Lab 3: Configuring Syslog**
- SNMP

- **Lab 4: Configuring SNMP**
- Monitoring Policies
- **Lab 5: Custom Monitoring Policy**
- Operations Tab Tools
- Exercise: Traffic Map
- Monitoring using CLI
- GITHUB Tools

### **Module 5: Troubleshooting ACI**

- Troubleshooting Methodology
- Troubleshooting Tools
- Exercise: Create Taboo Contract
- Exercise: iPing
- Exercise: End Point Tracker
- Exercise: Configure Visibility & Troubleshooting Session
- Exercise: Viewing Contract Drops
- Exercise: Viewing Contracts
- Exercise: Traceroute
- Exercise: Atomic Counters
- **Lab 6: SPAN**
- Troubleshooting Fabric Installation & Discovery
- Troubleshooting Access Ports
- Troubleshooting Unicast Data Plane Forwarding
- Troubleshooting Endpoint Connectivity
- Troubleshooting VMM
- Identify Hardware Failure

### **Lab 10: Break Lab**

### **Lab 11: Challenge Lab**

### **SUNSET LEARNING INSTITUTE (SLI) DIFFERENTIATORS:**

Sunset Learning Institute (SLI) has been an innovative leader in developing and delivering authorized technical training since 1996. Our goal is to help our customers optimize their cloud technology investments by providing convenient, high quality technical training that our customers can rely on. We empower students to master their desired technologies for their unique environments.

What sets SLI apart is not only our immense selection of trainings options, but our convenient and consistent delivery system. No matter how complex your environment is or where you are located, SLI is sure to have a training solution that you can count on!

**Premiere World Class Instruction Team**

- All SLI instructors have a four-year technical degree, instructor level certifications and field consulting work experience.
- Sunset Learning has won numerous Instructor Excellence and Instructor Quality Distinction awards since 2012

**Enhanced Learning Experience**

- The goal of our instructors during class is ensure students understand the material, guide them through our labs and encourage questions and interactive discussions.

**Convenient and Reliable Training Experience**

- You have the option to attend classes at any of our established training facilities or from the convenience of your home or office with the use of our HD-ILT network (High Definition Instructor Led Training)
- All Sunset Learning Institute classes are guaranteed to run – you can count on us to deliver the training you need when you need it!

**Outstanding Customer Service**

- Dedicated account manager to suggest the optimal learning path for you and your team
- Enthusiastic Student Services team available to answer any questions and ensure a quality training experience