
Cisco Application Centric Infrastructure Operations and Troubleshooting

Duration: 3 Days Course Code: DCACIO Version: 4.0

Overview:

The Cisco Application Centric Infrastructure Operations and Troubleshooting course shows you how to manage, monitor and troubleshoot Cisco Nexus 9000 Series Switches in Application-Centric Infrastructure (ACI) mode. Through expert instruction and hands-on practice, you will learn about operational tools, best practices, caveats and more. You will practice troubleshooting common issues on a live fabric. Based on lessons learned in wide range of production deployments, this course gives you the real-world knowledge and skills to boost operational efficiencies in your own deployment.

Target Audience:

IT professionals who wish to optimise the benefits of an Cisco ACI environment.

Objectives:

- **After completing this course you should be able to:**
 - Operationalise and troubleshoot the ACI fabric
 - Understand Cisco Application Policy Infrastructure Controller (APIC) and its monitoring, management and troubleshooting capabilities
 - Avoid common mistakes and recognise common symptoms
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Prerequisites:

Attendees should meet the following prerequisites:

- Cisco ACI concepts and implementation
- Familiarity with data center infrastructure operations
- Familiarity with management of Cisco data center switches
- Understanding of basic network troubleshooting
- **DCAC9K** attendance recommended

Testing and Certification

Recommended as preparation for the following exams:

- There are no exams currently aligned to this course
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Content:

ACI Overview and Configuration Review

- Review Cisco ACI Architecture and Cisco ACI Building Blocks
- Review the Physical and Logical Policy Model
- Configuration Review (Physical and Logical)
- ACI Policy Objects Review
- Fabric Access Policies
- vPC Explicit Protection Groups
- VMM Integration with vCenter
- L2 EPG Extension / L2 BD Extension Workflows
- L3 Route Distribution / BGP Route Reflection
- L3 Out Configuration Workflows
- Contract Deny (Taboo) Logging

Cisco ACI Firmware, Configuration, and Management

- Installation Checklist
- HW Installation and Fabric Discovery
- ACI Firmware Upgrades
- Import / Export
- Configuration Snapshots and Rollbacks
- Configuration Zones
- ACI Fabric Rebuild or Recovery
- Cluster Management
- Convert Cisco NX-OS mode to ACI mode
- APIC Management Access Protocols
- General Recommended Practices from the Technical Assistance Center TAC

Monitoring

- ACI Operation Tools
- ACI Dashboards
- Health Scores
- Faults in ACI
- Viewing Events and Logs
- Monitoring Policies
- Monitoring using CLI
- Displaying Capacity Dashboard and Traffic Map
- GitHub Tools

Troubleshooting

- Troubleshooting Checklist
- Faults in ACI
- Using Visore
- CLI Troubleshooting Commands: moquery/iping/itraceroute/acidiag
- Troubleshooting Endpoint Connectivity
- Visibility and Troubleshooting Tool
- Troubleshooting Access Ports
- Troubleshooting the Fabric Discovery Process (Link Layer Discovery Protocol [LLDP])
- Hardware Diagnostics and Replacement

Labs

- Tenant Configuration
- Virtual Machine Manager (VMM) Integration
- External L2 Configuration
- External L3 Open Shortest Path First (OSPF)
- Configure Syslog
- Configure Simple Network Management Protocol (SNMP)
- Visore
- Navigating the CLI
- iPing/iTraceroute
- Troubleshooting Challenge Labs

Further Information:

For More information, or to book your course, please call us on 353-1-814 8200

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