
Cisco Application Centric Infrastructure Operations and Troubleshooting

Duration: 3 Days Course Code: DCACIO Version: 4.0 Delivery Method: Company Event

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.

Company Events

These events can be delivered exclusively for your company at our locations or yours, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

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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