

## Troubleshooting Cisco Application Centric Infrastructure

**Duration: 2 Days**    **Course Code: DCACIT**    **Version: 5.2**

### Overview:

This course teaches you the key components and procedures that you need to know to manage, monitor, and troubleshoot Cisco® Nexus® 9000 Series Switches in Application Centric Infrastructure (ACI) mode. This course is for advanced engineers who have installed and managed existing fabrics or for those who have completed the **Implementing Cisco Application-Centric Infrastructure-Advanced (DCACI)** course.

#### **This course will help you:**

Learn how to design policy-driven automation to streamline the deployment lifecycle

Integrate a comprehensive solution using any hypervisor, supporting any workload, for any location, and in any cloud

Expand your knowledge of Cisco Nexus 9000 Series Switches

### Target Audience:

Engineers experienced with the implementation of Cisco Neus 9000 Series switches who need to develop their troubleshooting skills

### Objectives:

- **After completing this course, you should be able to:**
- Apply troubleshooting methodology to Cisco ACI networks
- Troubleshoot logical and physical constructs of the Cisco ACI policy
- Understand Cisco APIC and its troubleshooting aspects
- Troubleshoot endpoint learning in Cisco ACI
- Troubleshoot Layer 2 traffic bridging and Layer 3 routing in the Cisco ACI network
- Troubleshoot hypervisor integration in Cisco ACI
- Troubleshoot Layer 4 to Layer 7 service insertion
- Troubleshoot contracts and route leaking in Cisco ACI

### Prerequisites:

#### **Attendees should meet the following prerequisites:**

- Familiarity with data center infrastructure operations
- Familiarity with management of Cisco data center switches
- Basic programming
- Basic network troubleshooting
- System or network administration (Linux or Windows)
- Data center operations
- DCACI - Implementing Cisco Application Centric Infrastructure
- DCACIO - Cisco Application Centric Infrastructure Operations and Troubleshooting

### Testing and Certification

#### **Recommended as preparation for the following exams:**

- There are no exams currently aligned to this course

## Content:

### Describing Cisco ACI Troubleshooting Methodology

- Logical Constructs Review
- Physical Constructs Review
- Cisco ACI Troubleshooting Approaches
- VMM/Container Integration Review
- VMware Networking Review
- Cisco ACI APIC and Built-In Tools

### Troubleshooting Logical and Physical Constructs

- Troubleshooting Logical Constructs Methodology
- Troubleshooting Physical Constructs Methodology

### Troubleshooting Cisco APIC

- Verifying Cisco APIC Cluster
- Troubleshooting Cisco APIC Cluster

### Troubleshooting Endpoint Learning

- Verifying Endpoint Connectivity
- Controlling Endpoint Learning
- Troubleshooting Endpoint Learning

### Troubleshooting Layer 2

- VLAN and VXLAN Mapping
- Traffic Flow
- Layer 2 Unknown Unicast Flooding
- ARP Flooding
- ARP Gleaning
- Spanning Tree and BPDUs
- BPDUs Flooding
- Verifying VLANs and Endpoints

### Troubleshooting Layer 3 Routing

- Troubleshooting Layer 3 Connectivity Within Cisco ACI
- Troubleshooting L3Outs
- Layer 3 Transit Routing

### Troubleshooting VMM Integration

- Troubleshooting VMware
- Verifying Blade Chassis
- Verifying Leafs
- Verifying VMM Integration

### Troubleshooting Layer 4-7 Service Insertion

- Layer 4–7 Service Graph Overview
- Layer 4–7 Service Insertion Modes
- Troubleshooting Service Insertion with PBR

### Troubleshooting Contracts and Route Leaking

- VRF-VRF Contracts and Route Leaking

### Labs:

- Verify Endpoints
- Examine VLANs
- Troubleshoot ACI Policy
- Troubleshoot CMM integration and External Connectivity
- Troubleshoot Contracts

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## Further Information:

For More information, or to book your course, please call us on 00 20 (0) 2 2269 1982 or 16142

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