

## Administering and Troubleshooting Cisco Catalyst Center -Assurance (CATALYST-CENTER)

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In this Administering and Troubleshooting Cisco Catalyst Center -Assurance 5-day course delivers an in-depth, end-to-end exploration of Cisco Catalyst Center, focusing on how intent-based networking simplifies enterprise network design, deployment, monitoring, and ongoing operations. It is designed for network and wireless professionals responsible for managing modern campus networks who need to move beyond traditional, device-centric management to centralized, policy-driven operations. The course builds progressively from foundational concepts into advanced assurance, automation, security integrations, and lifecycle management.

Students begin by examining traditional network challenges and the principles of intent-based networking, establishing the business and technical drivers behind Cisco Catalyst Center. The curriculum then explores Catalyst Center architecture, deployment models, licensing, and core workflows such as network hierarchy design, device discovery, onboarding, provisioning, and software image management. Integration with Cisco ISE is emphasized to demonstrate identity-based policy enforcement, while telemetry, application visibility, and assurance modules highlight how real-time analytics and AI-driven insights improve operational visibility and reduce troubleshooting time.

The course expands into advanced operational capabilities, including Umbrella and ThousandEyes integrations, AI Endpoint Analytics, compliance monitoring, RBAC, backup and restore, rogue detection, and wireless security. Programmability and Prime-to-Catalyst Center migration are also covered to support automation and modernization initiatives. Extensive hands-on labs reinforce each topic, guiding students through real-world workflows such as cluster deployment, wired and wireless provisioning, assurance analysis, packet capture, reporting, software upgrades, and role-based access control, preparing learners to confidently operate Cisco Catalyst Center in large-scale enterprise environments.

#### Why Attend with Current Technologies CLC

- Our Instructors are in the top 10% rated by Cisco
- Our Lab has a dedicated 1 Gig Fiber Connection for our Labs
- Our Labs run up to Date Code for all our courses

#### Who Should Attend

The primary audience for this course is as follows:

- WAN Administrators
- WAN Engineers
- Security Administrators
- Security Engineers
- Network Administrators
- Network Engineers
- Helpdesk Support Administrators and Engineers
- NOC Support Administrators and Engineers
- IT Staff and Managers

#### Course Duration

5 days

#### Course Price

\$4,295.00 or 43 CLCs

#### Methods of Delivery

- Instructor Led
- Virtual ILT
- On-Site

## OUTLINE

### Module 1: Introduction to Cisco Catalyst Center (DNAC)

- Lesson 1: Traditional Network Challenges
  - Network Landscape Challenges
  - Business Policy Challenges
  - Network Management Scalability Challenges
  - Challenges with Network Management
- Lesson 2: Intent Based Networking
- Lesson 3: Introduction to Cisco Catalyst Center
- Lesson 4: Cisco Catalyst Center Architecture and Deployment Options
- Lesson 5: Key Features and Use Cases
- Lesson 6: Cisco Catalyst Center Licensing

### Module 2: CCC and ISE Integration

- Lesson 1: CCC-ISE Integration Overview
- Lesson 2: CCC- ISE Integration Benefits
- Lesson 3: Integration Process

### Module 3: Cisco Catalyst Center Workflow

- Lesson 1: Network Hierarchy
- Lesson 2: Network Settings
- Lesson 3: Image Repository
- Lesson 4: Network Profiles
- Lesson 5: Authentication Template

### Module 4: Network Discovery

- Lesson 1: Device Inventory
- Lesson 2: Device Onboarding
- Lesson 3: PnP Device Onboarding
- Lesson 4: Templates
- Lesson 5: Discover and Provision Wireless Devices

### Module 5: Telemetry and Application Health

- Lesson 1: Visibility Challenges in Enterprise Networking
- Lesson 2: Application Telemetry
- Lesson 3: Assurance
- Lesson 4: Application Health

### Module 6: Application Recognition and Visibility

- Lesson 1: Application Recognition Overview
- Lesson 2: Application Visibility View

### Module 7: Cisco Catalyst Center-Umbrella Integration

- Lesson 1: Umbrella Introduction
- Lesson 2: CCC and Umbrella Integration
- Lesson 3: Cisco Umbrella Workflow

### Module 8: Network Troubleshooting and Monitoring with Catalyst Center

- Lesson 1: Insights, Issues and Trends in the Network
- Lesson 2: Monitor and Manage CCC Integrations
- Lesson 3: Intelligent Capture Introduction
- Lesson 4: Hardware and Software Compatibility
- Lesson 5: Client-Side Features

- Lesson 6: AP-Side Features

### **Module 9: Cisco Sensor AP**

- Lesson 1: Cisco Aironet Active Sensor
- Lesson 2: Sensor Deployment and Provisioning
- Lesson 3: Sensor Data Flow
- Lesson 4: Sensor Tests

### **Module 10: CCC-Thousand Eyes Integration**

- Lesson 1: Thousand Eyes Introduction
- Lesson 2: Cisco Thousand Eyes Tests
- Lesson 3: Thousand Eyes Use Cases
- Lesson 4: Thousand Eyes Deployment
- Lesson 5: CCC and Thousand Eyes Integration

### **Module 11: AI Endpoint Analytics**

- Lesson 1: Current Network Challenges
- Lesson 2: Endpoint Analytics
- Lesson 3: Endpoint Profiling
- Lesson 4: Trust Analytics

### **Module 12: Cisco Catalyst Center Reporting**

- Lesson 1: Reports Introduction
- Lesson 2: Reporting Categories and Templates
- Lesson 3: Generate and View Reports

### **Module 13: Cisco Catalyst Center Compliance**

- Lesson 1: Compliance Overview
- Lesson 2: CCC Configuration Compliance Workflow

### **Module 14: RBAC and Backup-Restore**

- Lesson 1: Role Based Access (RBAC)
- Lesson 2: Backup and Restore Introduction
- Lesson 3: Backup Server Requirements
- Lesson 4: Backup Storage Requirements

### **Module 15: Rogue Management**

- Lesson 1: Rogue AP Introduction
- Lesson 2: Rogue AP Management
- Lesson 3: Rogue AP Containment
- Lesson 4: Advanced Wireless Intrusion Prevention System

### **Module 16: Software Image Management (SWIM)**

- Lesson 1: Software Image Management
- Lesson 2: Software Maintenance Update
- Lesson 3: ITSM Integration – Change Management

### **Module 17: CCC Programmability**

- Lesson 1: Cisco Catalyst Center Programmability

### **Module 18: Prime to CCC Migration**

- Lesson 1: Cisco Catalyst Center Readiness
- Lesson 2: Migration Strategy Overview
- Lesson 3: Migration Preparation

- Lesson 4: Performing the Migration
- Lesson 5: Parallel Run
- Lesson 6: Post-Migration and Best Practices

## LAB OUTLINE

- Lab 1: Installation of Catalyst Center from Scratch
- Lab 2: Catalyst Center Cluster Configuration
- Lab 3: Navigate the Catalyst Center GUI
- Lab 4: Integrate Cisco ISE with Catalyst Center
- Lab 5: Design the Network Hierarchy and Configure Network Settings
- Lab 6: Discover Wired Device Manually in the Inventory, Assign to Site, and Provision
- Lab 7: Discover Wired Device Using Plug and Play (PnP) Using Template Editor
- Lab 8: Discover and Provision C9800 WLC, Configure Wireless SSIDs and Network Profiles
- Lab 9: Configure C9800 WLC Using Template Editor
- Lab 10: Configure Cisco Catalyst Center Assurance Telemetry Profiles and Apply to Devices
- Lab 11: Generate and Monitor Application Traffic on Catalyst Center for Clients
- Lab 12: Application Visibility and Generate Client Traffic to Monitor Top Applications on Catalyst Center
- Lab 13: Catalyst Center Umbrella Integration for DNS or SIG (Secure Internet Gateway)
- Lab 14: Assurance Dashboards – Health, Issues, and WiFi 6 on Catalyst Center
- Lab 15: Intelligent Packet Capture and Spectrum Analysis
- Lab 16: 1800s AP as Sensor
- Lab 17: Application Visibility with Thousand Eyes and Catalyst Center
- Lab 18: AI Endpoint Analytics on Catalyst Center
- Lab 19: Rogue Detection Lab
- Lab 20: Reporting on Cisco Catalyst Center
- Lab 21: Catalyst Center Configuration Backup on External Server
- Lab 24: IOS-XE Device Upgrade/Downgrade Using SWIM via Catalyst Center
- Lab 25: Configure User, User Profile, and Roles
- Lab 26: Configure RBAC to Manage Cisco Catalyst Center
- Lab 27: Prime to Cisco Catalyst Center Migration