

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
- 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: Device Templates

- Lesson 1: Templates
- Lesson 2: How to Create CLI Templates
- Lesson 3: Use of CLI Templates
- Lesson 4: Device Configuration & Compliance
- Lesson 5: Network Profiles
- Lesson 6: Troubleshooting Best Practices
- Lesson 7: Troubleshooting Template Deployments
- Lesson 8: Template Compliance Checks

Module 6: Wireless Assurance

- Lesson 1: Discover and Provision Wireless Devices
- Lesson 2: Provision Catalyst 9800
- Lesson 3: Access Points
- Lesson 4: Insights with AIOps
- Lesson 5: Client Analytics
- Lesson 6: AI Analytics
- Lesson 7: Wi-Fi 7
- Lesson 8: Catalyst Center 9800 Licensing
- Lesson 9: Access Point Refresh
- Lesson 10: AP Auto Locate
- Lesson 11: AP Power Profile
- Lesson 12: RMA of an AP
- Lesson 13: Change Primary/Secondary/Tertiary WLC
- Lesson 14: Configure Aps

Module 7: Telemetry and Application Health

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

Module 8: Application Recognition and Visibility

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

Module 9: Cisco Catalyst Center-Umbrella Integration

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

Module 10: 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 11: 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 12: 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 13: AI Endpoint Analytics

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

Module 14: Cisco Catalyst Center Reporting

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

Module 15: Cisco Catalyst Center Compliance

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

Module 16: 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 17: 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 18: Software Image Management (SWIM)

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

Module 19: CCC Programmability

- Lesson 1: Cisco Catalyst Center Programmability

Module 20: 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 0: Lab Access via lab.ctclc.com
- Lab 1: Navigate Cisco Catalyst Center (CCC)
- Lab 2: Integrate Cisco ISE with Cisco Catalyst Center (Instructor Demo)
- Lab 3: Design Cisco Catalyst Center Network
- Lab 4: Discover Wired Device Manually in the Inventory, Assign to Site, and Provision
- Lab 5: Discover Wired Devices via Plug and Play (PnP) using Template Hub
- Lab 6: Discover and Provision C9800 WLC, Configure Wireless SSIDs and Network Profiles
- Lab 7: Configure C9800 WLC Using Template Hub
- Lab 8: Configure CCC Assurance Telemetry Profiles and Apply to Devices
- Lab 9: Generate and Monitor Application Traffic on CCC for Clients
- Lab 10: Application Visibility and Control on CCC
- Lab 11: CCC Assurance Dashboard
- Lab 12: Intelligent Packet Capture
- Lab 13: 1800s AP as Sensor
- Lab 14: AI Endpoint Analytics on Cisco Catalyst Center
- Lab 15: Reporting on Cisco Catalyst Center
- Lab 16: Compliance Audit for Network Devices
- Lab 17: RBAC on CCC
- Lab 18: CCC Configuration Backup on External Server (Instructor Demo)
- Lab 19: Rogue and aWIPS
- Lab 20: Software Image Management (SWIM)
- Lab 21: CCC Programmability