

Cisco Catalyst Center Foundations

Duration: 5 Days Course Code: CCFND Version: 1.0

Overview:

The **Cisco Catalyst Center Foundations (CCFND)** training is designed to expand your knowledge of Cisco Catalyst Center, including its basics, deployment and scalability options, initial configurations, best practices, and integration with Cisco Identity Services Engine (ISE). The training will focus on network automation, network assurance, network security, and network programmability using Cisco Catalyst Center. Though this training is not related to a specific exam, it is highly encouraged to take this training as an introduction to topics found in the Implementing and Operating Cisco Enterprise Network Core Technologies (350-401 ENCOR) exam.

This course is worth 44 Continuing Education (CE) Credits towards recertification

Target Audience:

Anyone involved in the deployment of a Cisco Catalyst Center Network Automation and Management Solution.

Objectives:

- **After completing this course you should be able to:**
- Learn about Cisco Catalyst Center product, intent-based networking, system architecture, and key features and use cases of Cisco Catalyst Center
- Use Cisco Catalyst Center automation (NetOps and SecOps), assurance (AIOps), and platform integration with DevOps in your enterprise network
- Deploy Cisco Catalyst Center based on pre-deployment requirements, and perform first-time setup procedures
- Describe high availability and scalability options for Cisco Catalyst Center, including clustering, link redundancy, and disaster recovery
- Explain Cisco Catalyst Center system settings, basic and advanced automation, device provisioning, and compliance audit procedures
- Configure Cisco Catalyst Center to onboard devices, integrate with ISE, automate device configurations, troubleshoot health of network devices, and track clients
- Describe Cisco SD-Access architecture, including fabric networking, underlay and overlay routing, and fabric node roles, and implement policy-based segmentation with group-based, IP-based, and application policies

Prerequisites:

Attendees should meet the following prerequisites:

- Basic understanding of network fundamentals
- Basic familiarity with Cisco ISE
- Basic familiarity with network automation and programmability
- CCNA - Implementing and Administering Cisco Solutions
- DEVASC - Developing Applications and Automating Workflows using Cisco Platforms
- ENCOR - Implementing and Operating Cisco Enterprise Network Core Technologies
- SISE - Implementing and Configuring Cisco Identity Services Engine

Testing and Certification

Recommended as preparation for the following exams:

- There is no exam currently aligned to this course

Content:

Cisco Catalyst Center Overview

- Intent-Based Networking
- System Architecture
- Key Features and Use Cases
- Automation and NetOps
- Automation and SecOps
- Assurance and AIOps
- Platform and DevOps
- Licensing and Device Support

Cisco Catalyst Center Deployment

- Deployment Options
- Pre-Deployment Requirements
- Maglev Installation
- First-Time Setup
- Application Installation

Cisco Catalyst Center High Availability and Scalability

- Scalability
- High Availability Options
- Three Node Cluster Considerations
- Link Redundancy
- Clustering
- Disaster Recovery

Cisco Catalyst Center System Settings and Operations

- Basic Configuration
- System and Application Update
- Backup and Restore
- Cisco ISE Integration
- User Management

Cisco Catalyst Center Inventory, Discovery, and Device Manageability

- Network Hierarchy
- Device Inventory
- Network Discovery
- Device Controllability

Cisco Catalyst Center Basic Automation and Provisioning

- Basic Network Settings Automation
- Device Provisioning
- Configuration Monitoring and Compliance Audit
- Software Image Management

Cisco Catalyst Center Advanced Automation and Day-0 Onboarding

- Network Profiles
- Wireless Design Model Configuration
- Configuration Templates
- Device Onboarding Using Plug-and-Play

Cisco Prime Infrastructure to Cisco Catalyst Center Migration

- Cisco Prime Infrastructure to Cisco Catalyst Center Migration Options
- Migration Process and Tools
- Migration Assessment and Reporting Using Cisco PDART
- Data Migration Using Prime Data Migration Tool
- Cisco Prime Infrastructure and Cisco Catalyst Center Coexistence

Cisco Catalyst Center Health and Performance Monitoring

- Cisco Catalyst Center Assurance Functional Components
- Cisco Catalyst Center Assurance Data Collection
- Cisco Catalyst Center Assurance Data Analytics and Metrics
- Cisco Catalyst Center Assurance Health Scores
- Cisco Catalyst Center Assurance Dashboard Time Ranges Concepts

Cisco Catalyst Center Assurance Device, Client, and Application Health

- Network Device Health
- Device 360 View
- Client Health and Client 360 View
- Application Health and Application 360 View
- Reports in Cisco Catalyst Center

Cisco Catalyst Center Issues, Insights, and Trends Monitoring

- Cisco AI Analytics
- Cisco AI Network Analytics - Anomaly Detection and Resolution
- Issues Operations
- AI-Driven Issues Resolution
- Trends, Insights, and Comparative Analysis
- Capacity, Security and Wi-Fi 6 Readiness Insights

Cisco Catalyst Center Wireless Networks Monitoring and Troubleshooting

- Assurance Tools for Troubleshooting Wireless Networks

Cisco SD-Access Overview

- Cisco SD-Access Introduction
- Cisco SD-Access Fabric Networking
- Cisco SD-Access Fabric Nodes
- Wireless SD-Access Overview

Cisco Catalyst Center Policies

- Cisco Catalyst Center Policies
- Group-Based Access Control Policies
- IP-Based Policies
- Application Policies

Cisco Catalyst Center Endpoint Visibility

- Endpoint Visibility Overview
- Group-Based Policy Analytics
- AI Endpoint Analytics

Cisco Catalyst Center Platform Overview

- Cisco Catalyst Center Platform Overview
- Intent-Based APIs
- Cisco Catalyst Center SDKs and other Tools
- Cisco Catalyst Center Notification and Events
- Cisco Catalyst Center Event Webhooks
- Cisco Catalyst Center and Third-Party Integrations

Cisco Catalyst Center Network and Assurance Automation

- Cisco Catalyst Center Network Automation Flow
- Cisco Catalyst Center Network Assurance Workflow

Labs

- Discovery Lab 1: Integrate Cisco ISE and Cisco Catalyst Center
- Discovery Lab 2: Add Network Devices to Cisco Catalyst Center
- Discovery Lab 3: Automate Basic Device Configuration Using Cisco Catalyst Center
- Discovery Lab 4: Upgrade Network Device using Cisco Catalyst Center
- Discovery Lab 5: Automate Network Device Configuration Using a Template
- Discovery Lab 6: Onboard a Device Using PnP
- Discovery Lab 7: Troubleshoot the Health of Network Devices
- Discovery Lab 8: Monitor the Health of Clients and Applications
- Discovery Lab 9: Observe Assurance AI Network Analytics
- Discovery Lab 10: Monitor Wireless Networks with Advanced Assurance Tools
- Discovery Lab 11: Explore Cisco

- Assurance-Correlated Insights for Wireless Networks
- Intelligent Capture for Troubleshooting Wireless Networks
- Intelligent Capture to Troubleshoot Clients
- Intelligent Capture to Collect AP-Based Statistics

- SD-Access Networks
- Discovery Lab 12: Deploy SD-Access Group-Based Access Control Policy
- Discovery Lab 13: Examine Cisco Catalyst Center APIs
- Discovery Lab 14: Examine Cisco Catalyst Center Webhooks
- Discovery Lab 15: Deploy IaaS Using Cisco Catalyst Center and Terraform
- Discovery Lab 16: Automate Cisco Catalyst Center Assurance Using Ansible

Further Information:

For More information, or to book your course, please call us on 00 971 4 446 4987

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