CCFND

Cisco Catalyst Center Foundations

40 horas | Enterprise Network | Cisco

Cisco Continuing Education Credits

44 CE Credits

INTRODUÇÃO

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) v1.1 exam. This training also earns you 44 Continuing Education (CE) credits toward recertification.

This training will help you:

• Expand your knowledge of Cisco Catalyst Center and networking principles

• Qualify for professional-level networking job roles

• Earn 44 CE credits toward recertification

OBJETIVO DO CURSO

• 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

PÚBLICO-ALVO

• Network Engineers
• Network Analysts
• Security Engineers
• IT Professionals
• Pre-Sales Engineers

PRÉ-REQUISITOS

There are no prerequisites for this training. However, the knowledge and skills you are recommended to have before attending this training are:

• Basic understanding of network fundamentals
• Basic familiarity with Cisco ISE
• Basic familiarity with network automation and programmability

These skills can be found in the following Cisco Learning Offerings:

• Implementing and Administering Cisco Solutions (CCNA)
• Implementing and Operating Cisco Enterprise Network Core Technologies (ENCOR)
• Implementing and Configuring Cisco Identity Services Engine (SISE)
• Developing Applications and Automating Workflows using Cisco Core Platforms (DEVASC)

CONTEÚDO PROGRAMÁTICO

Cisco Catalyst Center Overview

- Introduction
- 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

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

Cisco Catalyst Center High Availability and Scalability

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

Cisco Catalyst Center System Settings and Operations

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

Cisco Catalyst Center Inventory, Discovery, and Device Manageability

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

Cisco Catalyst Center Basic Automation and Provisioning

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

Cisco Catalyst Center Advanced Automation and Day-0 Onboarding

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

Cisco Prime Infrastructure to Cisco Catalyst Center Migration

- Introduction
- 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

- Introduction
- 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

- Introduction
- 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

- Introduction
- 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

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

Cisco SD-Access Overview

- Introduction

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

Cisco Catalyst Center Policies
• Introduction
• Cisco Catalyst Center Policies Overview
• Group-Based Access Control Policies
• IP-Based Policies
• Application Policies

Cisco Catalyst Center Endpoint Visibility
• Introduction
• Endpoint Visibility Overview
• Group-Based Policy Analytics
• AI Endpoint Analytics

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

Cisco Catalyst Center Network and Assurance Automation
• Introduction
• Cisco Catalyst Center Network Automation Workflow
• Cisco Catalyst Center Network Assurance Workflow

Labs
Discovery 1: Integrate Cisco ISE and Cisco Catalyst Center
• Task 1: Prepare Cisco ISE for Integration
• Task 2: Integrate Cisco ISE & Catalyst Center
• Task 3: Examine Cisco Catalyst Center Logs

Discovery 2: Add Network Devices to Cisco Catalyst Center
• Task 1: Explore Network Devices Configuration
• Task 2: Create Network Hierarchy
• Task 3: Add Network Devices to Inventory
• Task 4: Assign Network Devices to Sites

Discovery 3: Automate Basic Device Configuration Using Cisco Catalyst Center
• Task 1: Configure Basic Network Settings
• Task 2: Provision a Network Device
• Task 3: Deploy a Wireless Network
• Task 4: Examine Activities Tab to See Administrative Tasks

Discovery 4: Upgrade Network Device using Cisco Catalyst Center

• Task 1: Import a Network Device Image
• Task 2: Tag an Image as Golden
• Task 3: Upgrade a Network Device

Discovery 5: Automate Network Device Configuration Using a Template

• Task 1: Create a Template
• Task 2: Create a Network Profile
• Task 3: Provision a Network Device
• Task 4: Troubleshoot Provisioning Process

Discovery 6: Onboard a Device Using PnP

• Task 1: Create Day-0 Configuration Template
• Task 2: Prepare Network Device for PnP
• Task 3: Claim Network Device
• Task 4: Provision a Network Device

Discovery 7: Troubleshoot the Health of Network Devices

• Task 1: Verify the Overall Health of the Network Devices
• Task 2: Verify the Network's Device 360 View
• Task 3: Troubleshoot Network Device Issues

Discovery 8: Monitor the Health of Clients & Applications (Simulation)

• Task 1: Monitor Overall Client Health
• Task 2: Monitor Client 360 View & Troubleshoot Client Issues
• Task 3: Monitor Application Health & Performance

Discovery 9: Observe Assurance AI Network Analytics (Simulation)

• Task 1: Analyze Trends and Insights
• Task 2: Analyze Network Heatmaps
• Task 3: Analyze Peer Comparison
• Task 4: Analyze Network Comparison
• Task 5: Analyze Baselines

Discovery 10: Monitor Wireless Networks with Advanced Assurance Tools (Simulation)

• Task 1: Monitor Client Data on APs with Intelligent Capture

Discovery 11: Explore Cisco SD-Access Networks

• Task 1: Verify Network Switches Configuration
• Task 2: Verify Cisco Catalyst Center Configuration
• Task 3: Create an SD-Access Fabric Site
• Task 4: Assign Fabric Roles
• Task 5: Create a Virtual Network and Anycast Gateway
• Task 6: Configure Host Onboarding
• Task 7: Verify Host Onboarding

Discovery 12: Deploy Cisco SD-Access Group-Based Access Control Policy

• Task 1: Deploy Cisco SD-Access Fabric Authentication
• Task 2: Verify SD-Access Fabric Authentication
• Task 3: Deploy SD-Access Segmentation

Discovery 13: Examine Cisco Catalyst Center APIs

• Task 1: Explore Cisco Catalyst Center APIs

• Task 2: Use Insomnia with the Cisco Catalyst Center REST API

Discovery 14: Examine Cisco Catalyst Center Webhooks

• Task 1: Set Up the Webhook

• Task 2: Configure an Event Notification

• Task 3: Receive a Webhook Notification

Discovery 15: Deploy IaaC Using Cisco Catalyst Center and Terraform

• Task 1: Review the Current State of Network Hierarchy

• Task 2: Use Terraform to Deploy Network Hierarchy as IaaC

• Task 3: Modifying and Reviewing Network Hierarchy Changes using Terraform

Discovery 16: Automate Cisco Catalyst Center Assurance Using Ansible

• Task 1: Review the Current State of Network Devices

• Task 2: Use Ansible to Collect Assurance Data