

CCFND (CISCO CATALYST CENTER FOUNDATIONS) 1.0

Objetivo

• 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 (ISE)

• Developing Applications and Automating Workflows using Cisco Core Platforms (DEVASC)

Carga Horária

40 horas (5 dias).

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-Related 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 IaC Using Cisco Catalyst Center and Terraform

- Task 1: Review the Current State of Network Hierarchy
- Task 2: Use Terraform to Deploy Network Hierarchy as IaC
- 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