ENC9K (IMPLEMENTING CISCO CATALYST 9000 SWITCHES)

Objetivo

After taking this course, you should be able to: Review the Cisco Catalyst 9000 switching family, identify the switches features, and examine the functionalities purpose-built for Cisco DNA and the SD-Access solution Describe the Cisco Catalyst 9300 Series Switch architecture, model types, port types, uplink modules, and components, including power supplies and stacking cables Describe the Cisco Catalyst 9400 Series Switches, different modular chassis, supervisor and line card options, architectural components, uplink and power redundancy, and Multigigabit ports Describe the Cisco Catalyst 9500 Series Switches, model types, switch components, RFID support, architecture, and switch profiles Position the different Cisco Catalyst 9000 family switch model types in the network, and map older Cisco Catalyst switches to the 9000 family for migration Examine management capabilities of the Cisco Catalyst 9000 family of switches Describe the Cisco Catalyst 9000 family of switches deployed in a Cisco StackWise Virtual environment and an SD-Access fabric Describe the new Cisco IOS XE software management, patchability, and Graceful Insertion and Removal (GIR) features on the Cisco Catalyst 9000 switching family Describe the scalability and performance features supported by the Cisco Catalyst 9000 switching family Describe the Cisco Catalyst 9000 family's support for security, Quality of Service (QoS), and Internet of Things (IoT) convergence features Describe the Cisco Catalyst 9000 family's support for cloud hosting and connectivity, along with automation features Explore the SD-Access solution fundamentals, deployment models for the Cisco Catalyst 9000 family, and the use of Cisco DNA Center to manage infrastructure devices

Público Alvo

Network engineers, designers, managers, and system engineers who are adopting the Cisco Digital Network Architecture (Cisco DNA™) and will use Cisco Catalyst 9000 Switches to enable an SD-Access solution provisioned with DNA Center.

Pré-Requisitos

We recommend but do not require the following knowledge and skills before attending this course: Cisco CCNP® Routing and Switching certification or equivalent experience Knowledge of configuring LAN routing and switching with legacy Cisco Catalyst switches Familiarity with the Cisco IOS XE operating system Awareness of Cisco Identity Services Engine (ISE) as an authentication platform and policy manager

Carga Horária

24 horas (3 dias).

BR TREINAMENTOS | www.brtreinamentos.com.br | (11) 3172-0064
Matriz: Av. Fagundes Filho 191 | Conj. 104 - Vila Monte Alegre | São Paulo SP
Salas de aula: Av. Paulista 2006 | 18-andar Bela Vista | São Paulo SP

Conteúdo Programáitico

Course Introduction

Introducing Cisco Catalyst 9000 Series Switches

Introducing Cisco Catalyst 9000 Platforms
Introducing Cisco UDAP ASIC 2.0
Cisco UDAP 2.0 Core Architecture
Packet Walk with ASIC
Cisco Open IOS XE
Role of Cisco Catalyst 9000 Series Switches in Cisco DNA Architecture
Cisco Catalyst 9000 Series Licensing
Introducing Cisco Catalyst 9300 Series Switches

Cisco Catalyst 9300 Product Overview
Switch Models
Cisco Catalyst 9300 Switch Uplink Models
Cisco Catalyst 9300 Series Switches, Power Supplies, Stacking and Stack Cables
Enhanced Storage Options on Cisco Catalyst 9300
Cisco Catalyst 9300 Port Layouts
Multigigabit Ports
Introducing Cisco Catalyst 9400 Series Switches

Cisco Catalyst 9400 Product Overview
Cisco Catalyst 9400 4-slot Modular Switch Chassis
Cisco Catalyst 9400 7-Slot Modular Switch Chassis
Cisco Catalyst 9400 10-Slot Modular Switch Chassis
Cisco Catalyst 9400 Supervisor and Line Cards
Power Supplies
Cisco Catalyst 9400 High Availability Features
Cisco Catalyst 9400 Architecture
Cisco Catalyst 9400 Supervisor Uplinks and Uplink Redundancy
Cisco Catalyst 9400 Power Redundancy Modes
Cisco Catalyst 9400 Multigigabit Ports
Introducing Cisco Catalyst 9500 Series Switches

Cisco Catalyst 9500 Product Overview
Cisco Catalyst 9500 24-Q Series Switch
Cisco Catalyst 9500 12-Q Series Switch
Cisco Catalyst 9500-40X Series Switch
Cisco Catalyst 9500 Redundant Platinum Rated Power Supply
Cisco Catalyst 9500 Modular Fans
Cisco Catalyst 9500 Series Switch RFID
Cisco Catalyst 9500 24x40G Architecture
Cisco Catalyst 9500 12x40G Architecture
Cisco Catalyst 9500 40x10G Architecture
Positioning Cisco Catalyst 9000 Series Switches

BR TREINAMENTOS | www.brtreinamentos.com.br | (11) 3172-0064
Matriz: Av. Fagundes Filho 191 | Conj. 104 - Vila Monte Alegre | São Paulo SP
Salas de aula: Av. Paulista 2006 | 18-andar Bela Vista | São Paulo SP

Positioning Cisco Catalyst 9300 Series Switches
Positioning Cisco Catalyst 9400 Series Switches
Positioning Cisco Catalyst 9500 Series Switches
Migrating from the Cisco Catalyst 3850 to the Cisco Catalyst 9300
Migrating from the Cisco Catalyst 4500E to the Cisco Catalyst 9400
Migrating from the Cisco Catalyst 4500X,6840X and 6880 to the Cisco Catalyst 9500
Examining Cisco Catalyst 9000 Series Switches Management Capabilities

Cisco IOS Software Command-Line Interface
Cisco Prime Infrastructure
Cisco Application Policy Infrastructure Controller Enterprise Model
Cisco DNA Center
Onboard Cisco IOS XE Software Web User Interface GUI
Simple Network Management Protocol
Network Programmability Features
Deploying Cisco Catalyst 9000 Series Switches in Cisco StackWise Virtual and SD-Access Fabric

Cisco Stackwise Virtual Topology in N-Tier Network Topology
Deploying Cisco Catalyst 9000 Series in SD Access Fabric
Describing New Features on Cisco Catalyst 9000 Series Switches

Open IOS XE Patchability and Software Management
Software Upgrades, Backup and Restore
Graceful Insertion and Removal
New Licensing Packaging Structure
Cisco DNA Software Capabilities by Subscription
Open IOS XE Containers and Hosted Applications
Describing Scale and Performance Features on Cisco Catalyst 9000 Series Switches

Bandwidth Per Stack
Uplinks
Multigigabit Technology
Flexible NetFlow
Forwarding TCAM Resources, Flexible Lookup Tables Shared Across Cores, FlexTables
Cisco Catalyst 9500 Series Flexible ASIC Templates
Describing Security, QoS, and IoT Convergence Features on Cisco Catalyst 9000 Series Switches

Group-Based policy and Cisco TrustSec SGT for Wired and Wireless
AES-256 MACsec Encryption
FabricSec Encryption
Encrypted Traffic Analytics
Extend Security to Infrastructure with Trustworthy Systems
QoS Features and Packet Walk
Describe IoT Convergance Features on Cisco Catalyst 9000 Series Switches
Describing Cloud and Automation Features on Cisco Catalyst 9000 Series Switches

Cloud Hosting (AssurancePolicy) and Cloud Connectivity
Telemetry

BR TREINAMENTOS | www.brtreinamentos.com.br | (11) 3172-0064
Matriz: Av. Fagundes Filho 191 | Conj. 104 - Vila Monte Alegre | São Paulo SP
Salas de aula: Av. Paulista 2006 | 18-andar Bela Vista | São Paulo SP

DevOps Toolkit
NETCONF and YANG Management Model
Cisco DNA Center and SD-Access Programmability
High Availability Features
Describing Cisco SD-Access Solution and Cisco Catalyst 9000 Series Switches

Cisco SD-Access Solutions Fundamentals
Role of the Cisco Catalyst 9000 Series in the Cisco SD-Access Solution
Cisco DNA Center Components and Architecture
Cisco DNA Center Four Step Automation WorkFlow for SD-Access

Labs
Lab 1: Discover and Automate the Underlay Topology using PnP Base Automation Service of Cisco DNA Center GUI
Lab 2: Perform GIR on Cisco Catalyst 9000 Series Switch
Lab 3: Manage and Patch Cisco Catalyst 9000 Series Software Images using Cisco DNA Center GUI and CLI Commands
Lab 4: Enable and Verify Encrypted Traffic Analytics
Lab 5: Configure Perpetual PoE and Fast PoE on the Cisco Catalyst 9000 Series Switch
Lab 6: Use Programmability with Python Scripts and NETCONF/YANG for Cisco Catalyst 9000 Series Switch Management Automation
Lab 7: Deploy Cisco SD-Access Campus Fabric Using Cisco DNA Center Automation

BR TREINAMENTOS | www.brtreinamentos.com.br | (11) 3172-0064
Matriz: Av. Fagundes Filho 191 | Conj. 104 - Vila Monte Alegre | São Paulo SP
Salas de aula: Av. Paulista 2006 | 18-andar Bela Vista | São Paulo SP