

Course Outline

Implementing Cisco Catalyst 9000 Switches Course ENC9K: 3 days Instructor Led

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About this course

The Implementing Cisco Catalyst 9000 Switches (ENC9K) v1.0 course introduces you to the architecture, capabilities, and implementation of the Cisco® Catalyst® 9000 switching platform. This hands-on course covers many features of this Cisco IOS® XE platform and describes how to manage devices from a single dashboard called Cisco DNA Center™. You will learn how to use the Cisco Catalyst 9000 family of switches to enable Software Defined Access (SD-Access) and provide end-to-end security and automation with centralized management using DNA Center.

Audience profile

This course is intended for anyone interested in Catalyst 9000

At course completion

After completing this course, students will 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

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- Module 1: Introducing Cisco Catalyst 9000 Series Switches
- Module 2: Introducing Cisco Catalyst 9300 Series Switches
- Module 3: Introducing Cisco Catalyst 9400 Series Switches
- Module 4: Introducing Cisco Catalyst 9500 Series Switches

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- Module 5: Positioning Cisco Catalyst 9000 Series Switches
- Module 6: Examining Cisco Catalyst 9000 Series Switches Management Capabilities
- Module 7: Deploying Cisco Catalyst 9000 Series Switches in Cisco StackWise Virtual and SD-Access Fabric
- Module 8: Describing New Features on Cisco Catalyst 9000 Series Switches
- Module 9: Describing Scale and Performance Features on Cisco Catalyst 9000 Series Switches
- Module 10: Describing Security, QoS, and IoT Convergence Features on Cisco Catalyst 9000 Series Switches
- Module 11: Describing Cloud and Automation Features on Cisco Catalyst 9000 Series Switches
- Module 12: Describing Cisco SD-Access Solution and Cisco Catalyst 9000 Series Switches

Lab Outline

- 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