Programming Use Cases for Cisco Digital Network Architecture

Duración: 2 Días   Código del Curso: DNAPUC   Version: 1.0

Temario:

The Programming Use Cases for Cisco Digital Network Architecture course highlights the shift toward the digital enterprise and examines the components, benefits, and use cases of Cisco Digital Network Architecture (Cisco DNA) in an enterprise environment. You will learning about key platforms including Cisco® DNA Center, Cisco WebEx Teams™, Cisco Connected Mobile Experiences (CMX), and their related APIs. This course also covers open standards, tools, and network APIs that you can use to complement the Cisco DNA software portfolio, including Python, JavaScript Object Notation (JSON), Network Configuration Protocol (NETCONF), Representational State Transfer Configuration Protocol (RESTCONF), and Yet Another Next Generation (YANG).

Digitization is disrupting business. To remain viable and competitive, businesses must have a digital strategy that harnesses the power of the network. Cisco DNA is an evolutionary approach that takes advantage of programmable infrastructure and allows operators to manage networks through a combination of intent and policy.

This course will help you: Prepare for your organization's shift to a digital network infrastructure, Understand the possibilities that Cisco DNA, Cisco WebEx Teams, Cisco CMX, and their APIs present to your enterprise network, Learn how to leverage automation to simplify network management and realize cost savings.

Dirigido a:

Individuals looking to prepare for their organizations shift to a digital network infrastructure,or understand the posibilities that Cisco DNA, Cisco WebEx Teams, Cisco CMX and their API's present to their enterprise network.

Objetivos:

- **After completing this course you should be able to:**

- Understand the role that programmable infrastructure is having on the transition to the digital enterprise

- Describe Cisco DNA, its components and benefits, and explain a few use cases

- Describe the different technologies and solutions within the Cisco programmable infrastructure portfolio

- Describe Cisco DNA Center REST APIs

- Understand the functionality provided by Cisco WebEx Teams

- Describe Cisco CMX, services, and related APIs

- Describe the importance of DevOps culture within network operations in the shift to becoming a digital enterprise

Prerequisitos:

Attendees should meet the following prerequisites:

- CCNA® certification or equivalent experience
- Basic understanding of Programming for Network Engineers - **PRNE** recommended

Exámenes y certificación

Recommended as preparation for the followng exams:

- There are no exams currently aligned to this course.

Contenido:

Understanding Programmable Infrastructure

- Digital Enterprise
- Four Pillars of Digitization
- Network Programmability and Automation
- What Should Be Automated?
- Quantifying Programmability and Automation for the Business
- Network Programmability and Automation Use Cases

Introducing Cisco DNA

- Cisco DNA Overview
- Cisco DNA Components
- Benefits of Cisco DNA
- Cisco DNA Use Cases

Describing Programmable Infrastructure

- Cisco Programmability Options
- Data Center Infrastructure
- Enterprise Network Programmability
- Streaming Telemetry
- Collaboration
- Management, Monitoring, and Analytics

Describing Network APIs

- How APIs Enable Business Automation
- API Overview
- Data Encoding with JSON and XML
- RESTful APIs
- RESTCONF and NETCONF Overview
- Data Modeling with YANG

Describing Cisco DNA Center APIs

- Cisco DNA Center Overview
- Cisco DNA Center Automation Enterprise Benefits
- Cisco DNA Center Applications and Use Cases
- Cisco DNA Center REST API Overview
- Case Study: Network Automation at Symantec

Describing Cisco Collaboration APIs

- Cisco Webex Teams Overview
- Cisco Webex Teams Business Benefits
- Cisco Webex Teams API Overview

Describing Cisco Mobility APIs

- Cisco CMX Overview
- Cisco CMX Programmability Business Benefits
- Cisco CMX Mobility Services API Overview
- Case Study: Victoria University and Cisco CMX

Implementing DevOps Culture Within Network Operations

- Transition to DevOps
- CALMS Model (Culture, Automation, Lean, Measurement, Sharing)
- Role of Cisco Technology in the Transition to DevOps

Labs

- Lab 1: Generate Reports on Cisco Devices Using RESTful APIs
- Lab 2: Configure Cisco Devices Using RESTful APIs
- Lab 3: Get Real-Time Insight with Streaming Telemetry
- Lab 4: Configure Cisco Devices Using RESTful APIs
- Lab 5: Work with Devices That Support Consistent YANG Models with NETCONF and RESTCONF
- Lab 6: Perform Data Validation with YANG Models
- Lab 7: Path Trace an IP Address with Cisco DNA Center and Display the Results
- Lab 8: Display Intent APIs in Cisco DNA Center
- Lab 9: Post Message to Cisco Webex Teams Room with Link Layer Discovery Protocol (LLDP) Neighbors Change
- Lab 10: Discover Cisco CMX Notifications and Clients with GUI and APIs

Más información:

Para más información o para reservar tu plaza llámanos al (34) 91 425 06 60

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