

Implementing Automation for Cisco Enterprise Solutions (ENAU1)

Description

The Implementing Automation for Cisco Enterprise Solutions (ENAU1) v1.0 course teaches you how to integrate programmability and automation in the Cisco®-powered Enterprise Campus and Wide Area Network (WAN) using programming concepts, orchestration, telemetry, and automation tools to create more efficient workflows and more agile networks. Through a combination of lessons and hands-on labs, you will gain knowledge and skills for using Cisco Internetworking Operating System (Cisco IOS®-XE) for device-centric automation, Cisco Digital Network Architecture (Cisco DNA™) Center for the intent-based enterprise network, Cisco Software-Defined (SD) WAN, and Cisco Meraki™. You will study software development toolkits, industry-standard workflows, tools, and Application Programming Interface (APIs), such as Python, Ansible, Git, JavaScript Object Notation (JSON), YAML Ain't Markup Language (YAML), Network Configuration Protocol (NETCONF), Representational State Configuration Protocol (RESTCONF), and Yet Another Generation (YANG).

Course Content

Introducing Cisco SD-WAN Programmability Building Cisco SD-WAN Automation with Python Building Cisco SD-WAN Automation with Ansible Managing Configuration with Ansible and Network Automation and Programmability Abstraction Layer with Multivendor support (NAPALM) Implementing On-Box Programmability and Automation with Cisco IOS XE Software Implementing Model-Driven Telemetry Day 0 Provisioning with Cisco IOS-XE Automating Cisco Meraki Implementing Meraki Integration APIs Implementing Automation in Enterprise Networks Building Cisco DNA Center Automation with Python Automating Operations using Cisco DNA Center

Lab / Exercises

- Perform Administrative Tasks Using the Cisco SD-WAN API
- Build, Manage, and Operate Cisco SD-WAN Programmatically
- Consume SD-WAN APIs Using the Uniform Resource Identifier (URI) Module
- Build Reports Using Ansible-Viptela Roles
- Manage Feature Templates with Ansible
- Use NAPALM to Configure and Verify Device Configuration
- Implement On-Box Programmability and Automation with Cisco IOS XE Software
- Use Python on Cisco IOS XE Software
- Implement Streaming Telemetry with Cisco IOS XE
- Implement Cisco Meraki API Automation
- Explore Cisco Meraki Integration APIs
- Explore Cisco Meraki Webhook Alerts

Documentation

- Digital courseware included

Exam

- This course prepares you to the 300-435 ENAUTO Automating Cisco Enterprise Solutions exam. If you wish to take this exam, please contact our secretariat who will let you know the cost of the exam and will take care of all the necessary administrative procedures for you.

Participant profiles

- Network and system engineers
- Technical solutions architects
- Network administrators

Prerequisites

- Basic programming language concepts
- Basic understanding of virtualization
- Ability to use Linux and CLI tools, such as Secure Shell (SSH) and bash
- Networking knowledge equivalent to the CCNP level
- Participants should have followed or have knowledge covered by: [Implementing and Administering Cisco Solutions](#) or [Implementing and Operating Cisco Enterprise Network Core Technologies](#)

Objectives

- Describe the various models and APIs of the Cisco IOS-XE platform to perform
- Explain the paradigm shift of model-driven telemetry and the building blocks of a working solution
- Control the tools and APIs to automate Cisco DNA infrastructure managed by Cisco DNA Center™
- Demonstrate workflows (configuration, verification, health checking, and monitoring) using Python, Ansible, and Postman
- Explain Cisco SD-WAN solution components, implement a Python library that works with the Cisco SD-WAN APIs
- Manage the tools and APIs to automate Cisco Meraki managed infrastructure

Niveau

Avancé

Virtual Classroom Registration Price (CHF)

2850

Duration (in Days)

3

Reference

CIS-ENAU1