Implementing Automation for Cisco Data Center Solutions (DCAUI)

ID DCAUI **Price** 3,395.— € (excl. tax) **Duration** 3 days

Course Overview

The Implementing Automation for Cisco Data Center Solutions (DCAUI) training shows you how to implement Cisco Data Center automated solutions, including programming concepts, orchestration, and automation tools. The goal of this 5-day training is to highlight the tools and benefits of leveraging programmability and automation in the Cisco-powered Data Center. Examined platforms include Cisco ACI (the controller-based Data Center environment), Cisco NX-OS on all Cisco Nexus platforms for device-centric automation, and Cisco UCS for Data Center compute. Their current ecosystem of APIs, software development toolkits, and relevant workflows is inspected in detail together with open industry standards, tools, and APIs, such as Python, Ansible, Git, JSON/YAML, NETCONF/RESTCONF, and YANG.

This training prepares you for the 300-635 Automating Cisco Data Center Solutions (DCAUTO) certification exam. Introducing Automation for Cisco Solutions (CSAU) is required prior to enrolling in Implementing Automation for Cisco Data Center Solutions (DCAUI) because it provides crucial foundational knowledge essential to success. This training also earns you 24 Continuing Education (CE) credits towards recertification.

How you'll benefit
This course will help you:

- Learn the tools and the benefits of leveraging programmability and automation in the Cisco-powered Data Center
- Examine platforms include Cisco ACI (the controller-based Data Center environment), Cisco NX-OS on all Cisco Nexus platforms for device-centric automation, and Cisco UCS for Data Center compute
- ?Inspect the current ecosystem of APIs, software development toolkits, and relevant workflows in detail together with open industry standards, tools, and APIs, such as Python, Ansible, Git, JSON/YAML, NETCONF/RESTCONF, and YANG

What to expect in the exam

The 300-635 DCAUTO exam certifies your knowledge and skills related to implementing Data Center automated solutions including programming concepts, orchestration, and automation tools. After you pass 300-635 DCAUTO exam, you earn the Cisco Certified DevNet Specialist – Data Center Automation and Programmability certification, and you satisfy the concentration exam requirement for these professional-level certifications: Cisco Certified Network Professional Data Center (CCNP DATA CENTER) Cisco Certified DevNet Professional (CCDNP)

Who should attend

This course is designed for network and software engineers who hold the following job roles:

- Network engineer
- Systems engineer
- Wireless engineer
- Consulting systems engineer
- Technical solutions architect
- Network administrator
- Wireless design engineer
- Network manager
- Site reliability engineer
- Deployment engineer
- Sales engineer
- Account manager

This course is part of the following Certifications

Cisco Certified Network Professional Data Center (CCNP DATA CENTER)
Cisco Certified DevNet Professional (CCDNP)

Prerequisites

Before taking this course, you should have the following knowledge and skills:

- Basic programming language concepts
- Basic understanding of virtualization and VMware
- Ability to use Linux and command line interface (CLI) tools, such as Secure Shell (SSH) and bash

- CCNP level data center knowledge
- Foundational understanding of Cisco ACI

The following Cisco courses can help you gain the knowledge you need to prepare for this course:

- Implementing and Administering Cisco Solutions (CCNA) v2.0
- Introducing Automation for Cisco Solutions (CSAU)
- Implementing and Operating Cisco Data Center Core Technologies (DCCOR)

Course Objectives

After taking this course, you should be able to:

- Review Cisco ACI fundamental concepts, GUI workflows, and create the case for implementing automation
- Introduce the Cisco ACI REST API, the tools already available on the Cisco APIC, and understand basic API interaction using Postman
- Understand the functionality provided by the Python ACI libraries and write scripts that apply configuration and verify state on the Cisco ACI fabric
- Understand Cisco ACI Ansible modules, build playbooks that apply Infrastructure-as-Code concepts to Cisco ACI tenant configuration, and generate a health report using Ansible
- Understand Cisco ACI Apps Center integration and the benefits of integrating Kubernetes infrastructure with Cisco ACI
- Understand the API types and capabilities available on Cisco Nexus product family
- Understand Day 0 operations and how ZTP, POAP, and iPXE fulfill these goals with their respective tooling
- Understand functionality provided by the on-box tooling on the Cisco Nexus series switches and implement simple solutions to improve daily operations
- Use Python and Ansible to leverage the NX-API to implement and verify configuration state using modern workflows
- Understand the paradigm shift of Model-Driven Telemetry and explore a fully set up pipeline for data collection and analysis
- Understand the Cisco UCS developer tools and implement management workflows leveraging Cisco UCS APIs, Python, and Ansible modules
- Review Cisco NDFC product capabilities and understand how its API can be leveraged to automate the Cisco Data Center
- Understand the advantages of using Cisco Intersight and how to implement automation tasks using its REST APIs

- via Python and Ansible
- Describe Terraform plans for Cisco ACI deployments

Detailed Course Outline

- Describing the Cisco ACI Policy Model
- Describing the Cisco APIC REST API
- Using Python to Interact with the Cisco ACI REST API
- Using Ansible to Automate Cisco ACI
- Introducing Cisco NX-OS Programmability
- Describing Day-Zero Provisioning with Cisco NX-OS
- Implementing On-Box Programmability and Automation with Cisco NX-OS
- Implementing Off-Box Programmability and Automation with Cisco NX-OS
- Automating Cisco UCS Using Developer Tools
- Describing Cisco Intersight

About Fast Lane

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