

Automating and Programming Cisco Enterprise Solutions (ENAUTO)

ID ENAUTO Price 4,550.— €(excl. tax) Duration 5 days

Course Overview

The **Automating and Programming Cisco Enterprise Solutions (ENAUTO)** training teaches you how to implement Cisco Enterprise automated solutions, including programming concepts, orchestration, telemetry, and automation tools. The goal of this training is to highlight the tools and the benefits of leveraging programmability and automation in the Cisco-powered Enterprise Campus and WAN. Examined platforms include Cisco IOS XE software for device-centric automation, Cisco Catalyst Center for the intent-based enterprise network, Cisco Catalyst Software-Defined WAN (SD-WAN), and Cisco Meraki. Their current ecosystem of APIs, software development toolkits, and relevant workflows are 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 300-435 ENAUTO v2.0 exam. If passed, you earn the Cisco Certified Specialist - Enterprise Automation certification and satisfy the concentration exam requirement for the Cisco Certified Network Professional (CCNP) Enterprise and Automation concentration exams. This training also earns you 34 Continuing Education (CE) credits toward recertification. **How You'll Benefit**

This training will help you:

- Gain hands-on experience automating Cisco enterprise networks using Python, Ansible, APIs, and modern automation tools
- Explore automation across multiple Cisco platforms, including IOS XE, Catalyst Center, SD-WAN, and Meraki
- Learn to leverage AI and security best practices in network automation to boost operational efficiency and reliability
- Prepare for the 300-435 ENAUTO v2.0 exam
- Earn 34 CE credits toward recertification

What to Expect in the Exam

Automating and Programming Cisco Enterprise Solutions (300-435 ENAUTO) v2.0 is a 90-minute exam associated with the Cisco Certified Specialist - Enterprise Automation certification and satisfies the concentration exam requirement for the CCNP Enterprise and Automation certifications.

This exam tests your knowledge of implementing enterprise automated solutions, including:

- Device-level and controller-based network automation
- Operations
- AI in automation

Who should attend

- Network Engineers
- Systems Engineers
- Wireless Engineers
- Consulting Systems Engineers
- Technical Solutions Architects
- Network Administrators
- Wireless Design Engineers
- Network Managers
- Sales Engineers
- Account Managers

This course is part of the following Certifications

Cisco Certified Network Professional Enterprise (CCNP ENTERPRISE)
Cisco Certified Automation Professional (CCNP AUTOMATION)

Prerequisites

There are no formal prerequisites for this training. However, the knowledge and skills you are recommended to have before attending this training are:

- Basic programming language concepts
- Basic understanding of virtualization
- Ability to use Linux and CLI tools, such as SSH and bash

- CCNP level core networking knowledge
- Foundational understanding of Cisco Catalyst Center, Meraki, and Cisco Catalyst SD-WAN

These skills can be found in the following Cisco Learning Offerings:

- [Implementing and Administering Cisco Solutions \(CCNA\) v2.2](#)
- [Introducing Automation for Cisco Solutions \(CSAU\)](#)
- [Implementing and Operating Cisco Enterprise Network Core Technologies \(ENCOR\)](#)

Course Objectives

- Explain the need for data models for network automation
- Explain how to use Ansible and YANG Suite tools for effective network automation
- Describe Python and Netmiko as tools for CLI automation and explain how to automate VLANs, routing protocols, policies, and VPNs
- Introduce NETCONF and RESTCONF as model-driven protocols, explain their operations, datastores, and workflows, and compare where each is most effective
- Monitor configuration and operational data with NETCONF and RESTCONF, troubleshoot connectivity and model issues, and interpret errors for faster resolution
- Introduce Ansible for Cisco configuration management to detect drift, validate compliance, maintain a source of truth, and apply resource modules with safe rollout and rollback recovery
- Describe how Cisco IOS EEM automates tasks with events and policies, Guest Shell provides a secure Linux container for scripts, and ZTP creates the initial configuration
- Explore how to perform Day-0 operations with PnP in Cisco Catalyst Center
- Explore options for configuration management with Cisco Catalyst Center
- Explore advanced features of configuration templates with Jinja templates
- Learn about managing controller-based configuration with Ansible
- Learn about security automation
- Learn about techniques for troubleshooting authentication with the REST APIs of Cisco controllers
- Learn how to test and validate automation deployed on Cisco Catalyst Center and Cisco Catalyst SD-WAN Manager
- Learn how to use Catalyst Center and SD-WAN APIs to automate Software Image Management
- Learn how to use APIs to monitor network health with Cisco Controllers

- Learn how to use streaming telemetry and webhooks to monitor network health on Cisco Catalyst Center and Cisco Catalyst SD-WAN Manager
- Explain how to use AI capabilities in Cisco Catalyst Center, Cisco Catalyst SD-WAN Manager, and Meraki dashboard
- Explain how to use AI-assisted code development for network automation
- Explore security risks in AI-based network automation
- Explain the deployment of MCP servers and clients, and Python FastMCP support for AI agents

Detailed Course Outline

- Network Automation Models
- Network Automation Tooling
- CLI Automation with Python
- NETCONF and RESTCONF Automation
- Automating Configuration Monitoring
- Device Automation with Ansible
- On-Box Automation
- Controller-Based Day-0 Provisioning
- Catalyst Center Day-0 with Configuration Management
- Advanced Configuration Templates
- Controller-Based Configuration Management with Ansible
- Security Automation
- Troubleshoot Controller-Based Network Automation
- Testing and Validating Network Automation
- Controller-Based Software Management
- Automate Network Health Monitoring with Controller APIs
- Monitor Network Health with Streaming Telemetry and Webhooks
- AI Capabilities in Network Controllers
- AI Assistance in Network Automation
- Security Risks in AI-based Automation
- Support AI Agents with Python FastMCP

About Fast Lane



Fast Lane is a global, award-winning specialist in technology and business training as well as consulting services for digital transformation. As the only global partner of the three cloud hyperscalers- Microsoft, AWS and Google- and partner of 30 other leading IT vendors, Fast Lane offers qualification solutions and professional services that can be scaled as needed. More than 4,000 experienced Fast Lane professionals train and advise customers in organizations of all sizes in 90 countries worldwide in the areas of cloud, artificial intelligence, cyber security, software development, wireless and mobility, modern workplace, as well as management and leadership skills, IT and project management.

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- ✓ FLEX Classroom – Classroom & Online Hybrid
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- ✓ E-Learning
- ✓ Blended & Hybrid Learning
- ✓ Mobile Learning

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Germany

**Fast Lane Institute for Knowledge
Transfer GmbH**
Tel. +49 40 25334610
info@flane.de / www.flane.de

Austria

ITLS GmbH
(Partner of Fast Lane)
Tel. +43 1 6000 8800
info@itls.at / www.itls.at

Switzerland

**Fast Lane Institute for Knowledge
Transfer (Switzerland) AG**
Tel. +41 44 8325080
info@flane.ch / www.flane.ch