# Automating and Programming Cisco Enterprise (ENAUTO)

**Category:** Networking & Security | **Vendor:** Cisco

**Duration:** 40.00 hours (5 days) **32.5 CPD Hours**

**Rating:** ⭐ 4.6 (5,878 reviews)

## Course Information

| | |
|---|---|
| **Delivery Format:** | Instructor Led - Online |
| **Certification:** | Cisco Certified Specialist - Enterprise Automation, Cisco Certified Network Professional (CCNP) Enterprise and Automation concentration exams |
| **Related Exam:** | 300-435 |

## 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

## About This Course

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

## Prerequisites & Entry Requirements

**General 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)
- Introducing Automation for Cisco Solutions (CSAU)
- Implementing and Operating Cisco Enterprise Network Core Technologies (ENCOR)

# Learning Outcomes

**Upon successful completion of this course, participants will be able to:**

- 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 Course 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

### Certification Path

Cisco Certified Specialist - Enterprise Automation, Cisco Certified Network Professional (CCNP) Enterprise and Automation concentration exams

Exam: 300-435

**Skills You Will Learn:**

- Explain the need for data models for network automation<br>- Explain how to use Ansible and YANG Suite tools for effective network automation<br>- Describe Python and Netmiko as tools for CLI automation and explain how to automate VLANs, routing protocols, policies, and VPNs<br>- Introduce NETCONF and RESTCONF as model-driven protocols, explain their operations, datastores, and workflows, and compare where each is most effective<br>- Monitor configuration and operational data with NETCONF and RESTCONF, troubleshoot connectivity and model issues, and interpret errors for faster resolution<br>- 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<br>- 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<br>- Explore how to perform Day-0 operations with PnP in Cisco Catalyst Center<br>- Explore options for configuration management with Cisco Catalyst Center<br>- Explore advanced features of configuration templates with Jinja templates<br>- Learn about managing controller-based configuration with Ansible<br>- Learn about security automation<br>- Learn about techniques for troubleshooting authentication with the REST APIs of Cisco controllers<br>- Learn how to test and validate automation deployed on Cisco Catalyst Center and Cisco Catalyst SD-WAN Manager<br>- Learn how to use Catalyst Center and SD-WAN APIs to automate Software Image Management<br>- Learn how to use APIs to monitor network health with Cisco Controllers<br>- Learn how to use streaming telemetry and webhooks to monitor network health on Course Cisco Catalyst Center and Cisco Catalyst SD-WAN Manager<br>- Explain how to use AI capabilities in Cisco Catalyst Center, Cisco Catalyst SD-WAN Manager, and Meraki dashboard<br>- Explain how to use AI-assisted code development for network automation<br>- Explore security risks in AI-based network automation<br>- Explain the deployment of MCP servers and clients, and Python FastMCP support for AI agents

# Frequently Asked Questions

### Q: What delivery options are available for Automating and Programming Cisco Enterprise (ENAUTO)?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

---

### Q: What certification does this course prepare me for?

The Automating and Programming Cisco Enterprise (ENAUTO) course helps prepare you for the Cisco Certified Specialist - Enterprise Automation, Cisco Certified Network Professional (CCNP) Enterprise and Automation concentration exams certification path.

---

### Q: Which exam does this course prepare me for?

This course prepares you for the 300-435 official exam. You can take this exam at any exam center across United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online wherever you are located.

---

### Q: How many CPD hours does this course provide?

The 5-day Automating and Programming Cisco Enterprise (ENAUTO) course provides up to 32.5 CPD hours of structured learning. CPD certificates can be provided upon request.

---

### Q: What is the duration of the Automating and Programming Cisco Enterprise (ENAUTO) training?

The training takes place over 5 day(s), with each day lasting approximately 40.00 hours including breaks for lunch and refreshments.

---

### Q: Do you provide corporate training for Automating and Programming Cisco Enterprise (ENAUTO)?

Yes, we provide corporate training, dedicated training, and closed classes for Automating and Programming Cisco Enterprise (ENAUTO). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

---

### Q: What related terms do people search for?

Popular related searches include: Automating and Programming Cisco Enterprise Solutions, Cisco Professional Level Networking - CCNP, ENAUTO

---

### Q: Why choose Nexus Human for Automating and Programming Cisco Enterprise (ENAUTO)?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

---

### Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Automating and Programming Cisco Enterprise (ENAUTO) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.


## Nexus Human

**Professional Training & Development**

Email: info@nexushuman.com

Website: www.nexushuman.com

Phone: +353 1 889 8700 (Ireland) | +44 20 8142 8961 (UK)

© 2026 Nexus Human. All rights reserved. This brochure was generated on 19/10/2026.