

Automating and Programming Cisco Enterprise Solutions (CPLL-ENAUTO)

Duration: 180 Days

The Automating and Programming Cisco Enterprise Solutions (ENAUTO) Learning Path teaches you how to implement Cisco Enterprise automated solutions, including programming concepts, orchestration, telemetry, and automation tools. The goal of this Learning Path 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 Learning Path prepares you for the 300-435 ENAUTO v2.0 exam. If passed, you earn the Cisco Certified Specialist - Enterprise Automation and satisfy the concentration exam requirement for the Cisco Certified Network Professional (CCNP) Enterprise and Automation concentration exams.

Skills You'll Learn:

- Understand common network automation data models
- Apply network automation protocols
- Utilize tools for enterprise network automation
- Develop automation solutions for enterprise networks
- Interact with network devices and controllers
- Perform common operations for network automation
- Integrate AI capabilities in network automation
- Identify security risks in AI-powered network automation

Learning Path Objectives:

1. Network Automation Foundation: Explore network automation fundamentals by leveraging Ansible, learning YANG data models and tools like YANG Suite and pYANG, and applying techniques for interpreting, validating, and configuring models to streamline network operations.
2. Device-Level Network Automation: Implement device-level network automation by using Python with Netmiko, NETCONF, RESTCONF, and Ansible to automate and monitor network devices.

3. **Controller-Based Network Automation:** Leverage controller-based network automation by utilizing Catalyst Center, SD-WAN Manager, and Meraki Dashboard to provision, configure, monitor, and troubleshoot network devices through controller APIs and SDKs.
4. **Operations in Network Automation:** Perform common network automation operations such as testing and validation, software management, and health monitoring.
5. **AI in Network Automation:** Discover AI applications in network automation by utilizing AI capabilities in Cisco network controllers, assessing security risks and mitigation strategies, and employing AI agents with Python Fast MCP.

