

Advanced Network Automation with Python & Ansible

3 Days

DURATION

4

MODULES

8

TOPICS

COURSE OVERVIEW

This professional-level, instructor-led session provides hands-on training in network automation using Python and Ansible, with a focus on scalable, real-world implementations. Advanced Network Automation with Python & Ansible is a three-day Live Virtual Training designed for networking professionals looking to expand their automation capabilities. The course focuses on automating complex network tasks, improving operational efficiency, and reducing manual configuration errors using modern automation tools. Participants will learn how to write Python scripts, build dynamic Ansible playbooks, integrate APIs, and deploy automation workflows that mirror real-world networking environments. The training includes hands-on labs and a capstone-style project to reinforce practical skills. The session targets the following focus areas: Network Automation with Python, Configuration Management with Ansible, API-Driven & Model-Based Networking, Scalable Automation Workflows. By the end of the session, students will be equipped to design and implement secure, scalable automation solutions across enterprise networks.

WHO THIS COURSE IS FOR

- This Live Virtual Training is designed for networking professionals seeking to transition from manual network operations to automation-driven workflows
- Network engineers and administrators managing enterprise networks
- Network automation engineers focused on streamlining operations
- DevOps engineers integrating networking into CI/CD pipelines
- IT professionals transitioning into automation-focused roles
- CCNP and CCIE candidates building programmability skills

PREREQUISITES

- Working knowledge of networking fundamentals (VLANs, routing, device configuration)
- Familiarity with CLI-based device management
- Foundational Python knowledge (syntax, variables, loops)
- Basic exposure to Ansible and YAML is helpful but not required

4 Modules, 8 Topics

01

Python for Network Automation

TOPICS

- Develop Python scripts to automate network configuration and operational tasks
- Use libraries such as Netmiko to interact with network devices

02

Ansible Automation Framework

TOPICS

- Design, build, and execute Ansible playbooks for network automation
- Construct end-to-end automation workflows using Ansible

03

API & Model-Driven Networking

TOPICS

- Integrate REST APIs, NETCONF, and RESTCONF into automation solutions
- Work with YANG models and model-driven telemetry

04

Scalable & Secure Automation

TOPICS

- Implement automation solutions that scale across large environments
- Solve real-world network automation challenges using best practices

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

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