



PYTHON TRAINING

Python For Network Engineers

*Automate network tasks, manage devices, and build powerful network applications using Python.
Enhance your network engineering skills.*

DURATION

2 hours

LEVEL

Intermediate

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

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COURSE OVERVIEW

This 'Python For Network Engineers' course is meticulously designed for intermediate-level network professionals eager to leverage Python's power to automate routine tasks, manage configurations, and orchestrate complex network operations. In just two intensive hours, you will dive into the practical application of Python scripting, learning to interact programmatically with network devices, parse operational data, and implement foundational automation solutions. This course moves beyond theoretical concepts, focusing on hands-on skills that are immediately applicable to real-world networking challenges.

The curriculum covers essential Python libraries and frameworks pertinent to network automation, including Netmiko for device interaction, and explores data serialization formats like JSON and YAML for configuration management. By the end of this certification, you will be equipped to write scripts that can configure devices, gather diagnostic information, and validate network state, significantly boosting your efficiency and reducing manual errors. This foundational knowledge empowers network engineers to transition into more strategic roles, enhancing their value to any organization looking to modernize its network infrastructure.

Duration	2 hours
Level	Intermediate
Vendor	Python

COURSE CURRICULUM

01 Module 1: Foundations of Network Automation with Python

- Review of Python Essentials for Network Scripting (Variables, Loops, Functions)
- Understanding the Drivers and Benefits of Network Automation
- Setting Up Your Python Environment for Network Automation (Virtual Environments, pip)

02 Module 2: Interacting with Network Devices Programmatically

- Introduction to Netmiko for SSH Connectivity
- Executing Commands and Retrieving Output from Network Devices
- Basic Parsing of Command Line Interface (CLI) Output

03 Module 3: Configuration Management and Data Handling

- Working with Structured Data: JSON and YAML for Network Configurations
- Introduction to Configuration Templates (e.g., Jinja2 concepts for dynamic configs)
- Automating Configuration Changes on Multiple Devices

04 Module 4: Practical Network Automation Use Cases

- Developing Scripts for Network Device Inventory and Status Collection
- Implementing Basic Network Monitoring and Alerting Scripts
- Best Practices for Error Handling and Script Robustness

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Network Automation Engineer**
- > **DevOps Network Engineer**
- > **Senior Network Administrator (with Automation Specialization)**

FREQUENTLY ASKED QUESTIONS

Q: What specific networking knowledge or Python proficiency is required as a prerequisite for this intermediate 2-hour course?

This course assumes you have a foundational understanding of networking concepts (e.g., IP addressing, routing, switching, SSH/Telnet protocols) and basic Python scripting knowledge, including variables, data types, loops, and functions. While we'll briefly review Python essentials relevant to networking, prior experience will ensure you get the most out of the hands-on automation examples.

Q: After completing this course, what types of practical network automation tasks will I be proficient in performing with Python?

Upon completion, you will be proficient in automating common tasks such as connecting to network devices via SSH using Netmiko, executing CLI commands, parsing command output to extract useful data, pushing standardized configurations (e.g., creating VLANs, updating ACLs) to multiple devices, and gathering network inventory or operational status programmatically. You'll gain the foundational skills to start building your own automation workflows.

Q: How does learning Python for Network Engineers specifically enhance my career prospects beyond traditional network administration roles?

Mastering Python for network engineering significantly elevates your career by transforming you from a traditional administrator into a network automation specialist. This skill set is highly sought after for roles like Network Automation Engineer, DevOps Network Engineer, and Site Reliability Engineer, where you'll be responsible for designing, implementing, and maintaining scalable, programmable network infrastructures, offering a direct pathway to advanced and higher-paying positions in the evolving IT landscape.

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

10,000+

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Vendor Certifications

READY TO ENROL?

Take the next step in your technology career.

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