Network Automation with Ansible Fast Track

Course A201 2 Days Instructor-led, Hands on

Introduction

This course provides a comprehensive introduction to using Ansible for network automation and management. Ansible's agentless nature and human-readable YAML syntax lower the barrier to entry, enabling teams to achieve immediate ROI in configuration management and multi-vendor consistency. It teaches the principles of Infrastructure as Code by focusing on the desired outcome rather than a step-by-step process.

Who Should Attend?

- Network Engineer/Administrator
- IT/Network Manager or Team Lead
- Systems Administrator or DevOps Engineer
- Security and Compliance Analyst
- Aspiring Network Architect/Consultant

Course Objectives

- Automate at Scale:** Develop and run Ansible playbooks to automate common network administration tasks.
- Manage Multi-Vendor Environments: Use Ansible's core modules and advanced features to manage configurations on a variety of network devices.
- Build Reusable Solutions: Apply Jinja2 templates and Ansible Roles to create scalable, maintainable automation code.
- Secure Your Workflows: Implement secure automation practices using Ansible Vault and robust error-handling techniques.

Course Outline

Module 1: Ansible Foundations

- Introduction to Ansible
- Introduction to YAML
    - Making an Inventory
    - Running a Playbook
    - ansible.cfg setup
    - Looping Tasks
    - Setting Variables

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- When Condition

Module 2: Core Modules and Network Collections

- Ansible Module - copy
- Ansible Module - file
- Ansible Module - get_url and uri
- Ansible Module - template
  - Collections, Roles, and Ansible Galaxy
- Using Collections
- Exploring Switches with Ansible
- Backup Cisco, Juniper, Arista, and More

Module 3: Agnostic and Vendor-Specific Modules

- Agnostic Network Modules
- Simplifying Network Playbooks with Agnostic Modules
- Network Playbooks and Vendor Specific Modules
- Ansible Get Switch Config and Archive
- network_cli Playbook

Module 4: Dynamic Facts and APIs

- Using Ansible Facts
- Network API Calls
- Jinja2 Templating for Network Configurations

Module 5: Reusability and Security

- Using Roles
- Making Roles
- Ansible Vault

Module 6: Robustness and Error Handling

- Ansible Error Handling
- Network Playbook Error Handling
- Network Playbook Precheck
- Network Playbooks with Roles and Rollbacks