Network Automation with Ansible Fast Track

- 2 Days
- Lecture and Hands-on Labs

Course Overview

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.

Review this course online at https://www.alta3.com/courses/ans201ft

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

What You'll Learn

- 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.

Outline

Ansible Foundations

- Lecture: Introduction to Ansible
- Lecture: Introduction to YAML
- Lecture + Lab: Making an Inventory
- Lecture + Lab: Running a Playbook
- Lecture + Lab: ansible.cfg setup
- Lecture + Lab: Looping Tasks
- Lecture + Lab: Setting Variables
- Lecture + Lab: When Condition

Core Modules and Network Collections

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

Agnostic and Vendor-Specific Modules

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

Dynamic Facts and APIs

- Lecture + Lab: Using Ansible Facts
- Lecture + Lab: Network API Calls
- Lecture + Lab: Jinja2 Templating for Network Configurations

Reusability and Security

- Lecture + Lab: Using Roles
- Lecture + Lab: Making Roles
- Lecture + Lab: Ansible Vault

Robustness and Error Handling

- Lecture + Lab: Ansible Error Handling
- Lecture + Lab: Network Playbook Error Handling
- Lecture + Lab: Network Playbook Precheck
- Lecture + Lab: Network Playbooks with Roles and Rollbacks

Prerequisites

- Basic Keyboard Proficiency: Ability to efficiently navigate and use a keyboard, including typing, copy-pasting, and basic text editing in terminal and/or text editors.