



Operating NetDevOps

- 5 Days
- Lecture and Hands-on Labs

Course Overview

You are a member of the operations team. Your role will be to fully utilize the MDD process when performing network moves, adds, and changes. You will master the CI/CD pipeline. You will transition from command line management, to model driven network management. You will also develop skills in network deployment testing using CML. This class includes Cisco Modeling Labs essentials.

Who Should Attend

- Network Administrators
- Administrators interested in Automation
- CCNA's interested in Network Automation

What You'll Learn

- Learn to run an existing, fully operational MDD network
- Transition skills from command line to Model driven network management
- Learn to modify the Source of Truth
- Write the Validation Schema
- Run Test Scenarios

Outline






Introduction to NetDevOps

-  Lecture: NetDevOps: Network Management for the Agile Era
-  Lecture: Understanding NetDevOps: Source of Truth
-  Lecture: Overview of NetDevOps Processes







NetDevOps Essentials

-  Lecture: NetDevOps Essential Tools
-  Lecture: The NetDevOps Pipeline





Ansible

-  Lecture: Introduction to Ansible
-  Lecture + Lab: Installing Ansible
-  Lecture: Introduction to YAML
-  Lecture: Static Inventory
-  Lecture + Lab: Ansible Host Inventory





NetBox

-  Lecture + Lab: Introduction to Netbox
-  Lecture + Lab: Setting up your Organization
-  Lecture + Lab: The Netbox API
-  Lecture + Lab: IP Address Management
-  Lecture + Lab: Making Connections
-  Lecture + Lab: Setting Up WIFI

Cisco Modeling Labs

-  Lecture: Introduction to Cisco Modeling Labs (CML)
-  Lecture + Lab: CML Manual Topography
-  Lecture: SSH to CML Nodes
-  Lecture + Lab: SSH to CML Nodes

Integrating NetDevOps Tools

-  Lecture + Lab: CML Dynamic Inventory
-  Lecture + Lab: Building CML Lab with Ansible
-  Lecture + Lab: Converting Netbox Config to CML Topology
-  Lecture + Lab: CML Facts Ansible Modules

CI/CD Pipeline to Implement Change

-  Lecture + Lab: Netbox-Jinja2 Device Config with Ansible
-  Lecture + Lab: Rolling Back Network Changes

Validation

-  Lecture + Lab: Detecting Manual Interference Outside the Source of Truth
-  Lecture: Managing the Hot Fix
-  Lecture + Lab: Managing Config Drift

Prerequisites

CCNA or equivalent networking experience