Cisco NSO Administration and DevOps (CPLL-NSO303)

Duration: 180 Days

The Cisco Network Services Orchestrator (NSO) Administration and DevOps training continues the learning journey of the NSO Essentials for Programmers and Network Architects and NSO Advanced for Python Programmers trainings by introducing you to the system administration and DevOps focusing on NSO. This includes the robust bridge linking network automation and orchestration tools, examining the development, operation, and administration task functions. You will learn how to set up, configure, deploy, and maintain a Cisco NSO solution, and learn best practices for using DevOps. The examples shown in this training demonstrate real-world scenarios to prepare you for deployment and management of new or existing NSO instances.

The training guides you through the setup of production-ready NSO instances using system installation with access control settings, the deployment of NSO in Docker containers, and introduces modern DevOps concepts and tools such as Git and Continuous Delivery/Continuous Deployment (CI/CD). You will learn how to migrate Continuous Diagnostics and Mitigation (CDM) devices, how to build Network Configuration Protocol (NETCONF) Network Element Drivers (NEDs) from the NSO Command-Line Interface (CLI), how to handle NSO Alarms, and many more features that benefit you in your journey with Cisco NSO. This training also earns you 32 Continuing Education (CE) credits toward recertification.

Skills You'll Learn:

- Install, configure, and maintain a Cisco Network Services Orchestrator solution
- Apply DevOps best practices for Cisco NSO development, operations, and administrative tasks
- Implement Layered Service Architecture (LSA) within a Cisco NSO solution
- Gain knowledge for protocols, solutions, and designs to acquire professional-level and expert-level service provider and networking roles

Learning Path Objectives:

- Describe network and IT convergence
- Describe Cisco NSO architecture
- Describe Linux
- Configure Cisco NSO
- Set up access control to Cisco NSO system
- Describe Cisco NSO Integration Options
- Explain version control systems and basic git concepts

- Describe the purpose of continuous integration and continuous delivery
- Implement Cisco NSO high availability
- Describe scalable system management
- Describe software development methodologies
- Describe service maintenance
- Perform NED upgrades
- Use Cisco NSO for managing services and their associated device configurations
- Describe Cisco NSO change management
- Explain service problem management
- Use Cisco NSO for service monitoring and compliance reporting
- Describe Cisco NSO inventory management
- Describe Cisco NSO use cases