

# NSO303 (CISCO NSO ADMINISTRATION AND DEVOPS) 4.0

## Objetivo

After completing this course, you should be able to:

- 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.

## Público Alvo

DevOps engineers  
Integration engineers  
Network and software architects  
Network engineers  
Software engineers  
System administrators

## Pré-Requisitos

Before you take this course, we recommend that you have the knowledge and skills obtainable by attending the Cisco Network Services Orchestrator Foundation (NSO201) class, including:

- Basic knowledge of the Cisco Command-Line Interface (CLI);
- Basic knowledge of the CLI of UNIX-like operating systems;
- Basic knowledge of Yet Another Next Generation (YANG) data modelling;
- Basic knowledge of Python software development.

## Carga Horária

32 horas (4 dias).

## Conteúdo Programático

- Introducing Network and IT Convergence
- Introducing Cisco NSO Architecture
- Introducing Linux
- Explaining Cisco NSO Setup
- Exploring Access Control
- Describing Integration Options
- Explaining Version Control System
- Describing Continuous Integration and Continuous Delivery
- Introducing Scalability and High Availability
- Describing Scalable System Management

Describing Software Development Methodologies  
Introducing Service Maintenance  
Performing Network Element Driver (NED) Upgrades  
Introducing Configuration Management  
Describing Change Management  
Explaining Service Problem Management  
Explaining Service Monitoring and Compliance Reporting  
Introducing Inventory Management  
Describing Cisco NSO Use Cases

**Lab outline**

Perform NSO System Install  
Implement Role-Based Access and PAM  
Using Cisco NSO APIs  
Learn to work with Git  
Use NSO in Docker  
Configure High Availability  
Migrating a Monolithic Service to LSA  
Deploying the LSA Services  
Use the Network Connectivity Tool (NCT)  
Perform Service Backup and Restore  
Migrate a CDM Device  
Build a NETCONF NED  
Replacing a Device  
Troubleshoot NSO Alarms and Services  
Creating a Compliance Report