NSO Advanced for Python Programmers

Duration: 4 Days   Course Code: NSO300

Overview:

This course explores how to create advanced services using Cisco NSO programmability with Python scripting with both new and existing Layer 3 Multiprotocol Label Switching (MPLS) VPN services. Students will also learn how to manage and scale these services, and how to use NSO Network Functions Virtualization (NFV) orchestration features and Cisco Elastic Services Controller (ESC) to manage Virtualized Network Functions (VNFs).

Target Audience:

The primary audience for this course is system installers, system integrators, system administrators, network administrators, and solutions designers.

Objectives:

- **At the end of this course, you will be able to:**

- Describe the NSO's transactional application framework and mapping model options

- Describe the Reactive Fastmap design pattern and the NSO Configuration Database (CDB) subscriber in the NSO Transaction model

- Simplify packages to remove the need for subscriber applications, scale orchestration solutions, and integrate NSO with external systems (east-west integration)

- Describe the Cisco ESC architecture and integration with NSO, and how the NSO VNF Orchestration (VNFO) Release 2 bundle interacts with ESC for orchestration

Prerequisites:

Attendees should meet the following prerequisites:

- Knowledge and skills that can be obtained by attending the Cisco NSO Essentials for Programmers and Network Architects (NSO201) class or equivalent
- Basic knowledge of the Cisco command-line interface (CLI)
- Basic knowledge of the CLI of UNIX-like operating systems
- Basic knowledge of YANG data modeling
- Basic knowledge of Java or Python software development

Testing and Certification

Recommended as preparation for the following exams:

- There are no exams currently aligned to this course.

Content:

Cisco NSO Programmability

- NSO Application Framework
- NSO Python Scripting
- NSO Python and Template-Based Services
- Resources

Augmenting Cisco NSO Service

- Augmenting Cisco NSO Service
- Service Lifecycle and Integration Options Overview
- Greenfield Layer 3 MPLS VPN Service
- Brownfield Layer 3 MPLS VPN Service

Managed Services

- Managed Services Overview
- Stacked Service Design Overview
- Design-Managed Network Services
- Scaling Service Orchestration

Cisco NSO Network Functions Virtualization (NFV) Orchestration

- ETSI MANO
- Cisco ESC
- Cisco NSO Orchestration

Labs

- Lab 1: Device Setup Using Python Script
- Lab 2: Create an SVI Service Using pre_modification Service Callback
- Lab 3: Create a L3VPN Service Using Dynamic ID Allocation
- Lab 4: L3VPN Service Upgrade
- Lab 5: Stacked Services
- Lab 6: Service Action
- Lab 7: ESC Integration
- Lab 8: NFV for the DMZ Service

Further Information:

For More information, or to book your course, please call us on 00 966 92000 9278

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