
Cisco® Designing and Implementing Cisco® Network Programmability v1.0 (NPDESI)

Overview

Addresses the evolving role of network engineers towards more programmability, automation and orchestration, enabling them to leverage the powerful level of abstraction provided by controller based architectures to create real added value.

Target Audience

The primary audience for this course is as follows:

- Network Engineer
- Field Engineer
- System Engineer
- Network Designer
- Network Operations

The secondary audience for this course is as follows:

- Network Automation Engineer
- Network Programmer
- Network Developer
- Software Engineer
- Application Developer

Course Objectives

Upon completing this course, the learner will be able to meet these overall objectives:

- Learn how to minimize the amount of manual interactions (“CLI”) with the network, and increase the use of scripts and automation tools to drive down operational inefficiencies.
- Review network programmability fundamentals including Linux and Python, common automation protocols such as NETCONF and REST and how they relate to YANG data models.
- Learn about SDN controllers including APIC, APIC-EM and OSC, as well as how to use device-level APIs such as Cisco NXOS, IOS-XE, IOS-XR and ASA OS.
- Learn about DevOps and Agile software development methodologies, and get started on using automation tools such as Ansible, Chef and Puppet.

Course Outline

1 - Course Outline

Network Programmability Fundamentals
APIs and Automation Protocols
Data Models
SDN Controllers
Network Operations