Introduction to the Junos Operating System (IJOS)
Course Duration: 24 Hours (3 Days)

Overview

The Introduction to the Junos Operating System (IJOS) course is designed to provide networking professionals with a foundational understanding of the Junos OS, used in Juniper Networks technology. The course covers key topics including Architecture, User interface, Configuration basics, Operational monitoring, and Routine maintenance. Participants will learn about Traffic processing, Initial system configuration, User authentication, Logging, and Network time synchronization. Additionally, they will gain practical experience through hands-on labs that focus on the CLI, Configuring interfaces, Routing policies, Firewall filters, and Class of Service (CoS). This course is essential for individuals looking to work with Juniper's network devices, as it equips them with the necessary skills to manage and troubleshoot the Junos OS, thereby enhancing their networking expertise and career prospects.

Audience Profile

The 'Introduction to the Junos Operating System' course is designed for networking professionals aiming to gain expertise in Junos OS.

- Network Engineers
- Network Administrators
- Network Support Personnel
- Network Designers
- IT Professionals involved in configuring Juniper Networks devices
- Security Engineers managing firewalls and filters
- Service Provider Technicians focused on core network implementation
- Data Center Professionals working with advanced network environments
- Network Consultants specializing in Junos-based infrastructure
- System Integrators integrating Junos devices into client networks
- Professionals preparing for Juniper Networks Certification (JNCIA-Junos)

Course Syllabus

I. Course Introduction

II. Junos Operating System Fundamentals

- A. Overview of the Junos OS
- B. Traffic Processing
- C. Overview of Junos Devices

III. User Interface Options

- A. Overview of User Interface Options
- B. The Junos CLI: Basics
- C. The Junos CLI: Operational Mode

- D. The Junos CLI: Configuration Mode
- Lab: The Junos CLI

IV. Initial Configuration

- A. Factory-Default Configuration
- B. Initial System Configuration
- C. Interface Configuration
- Lab: Initial System Configuration

V. Secondary System Configuration

- A. User Configuration and Authentication
- B. System Logging and Tracing
- C. Network Time Protocol (NTP)
- D. Archiving Configurations
- E. SNMP Configuration
- Lab: Secondary System Configuration

VI. Operational Monitoring and Maintenance

- A. Monitoring Platform and Interface Operations
- B. Using Network Utilities
- C. Maintaining the Junos OS
- D. Password Recovery
- E. System Clean-Up
- Lab: Operational Monitoring and Maintenance

VII. Interface Configuration Examples

- A. Overview of the Interface Configuration Hierarchy
- B. Interface Configuration Examples
- C. Using Configuration Groups
- Lab: Configuring Interfaces

VIII. Routing Policy

- A. Overview of Routing Policies
- B. Case Study: Routing Policies
- Lab: Routing Policy

IX. Firewall Filters

- A. Overview of Firewall Filters
- B. Case Study: Firewall Filters
- C. Unicast Reverse-Path-Forwarding (uRPF) Checks
- Lab: Firewall Filters

X. Class of Service (CoS)

- A. Overview of Class of Service
- B. Traffic Classification
- C. Traffic Queueing
- D. Traffic Scheduling