

Course Content: Introduction to Junos Platform Automation and DevOps (IJAUT)

TOPIC 1: COURSE INTRODUCTION

- Introduction about the Course

TOPIC 2: INTRODUCTION TO JUNOS OS

Junos OS Basic Design Architecture
Traffic Processing
CLI Modes and Features
Initial Configuration Tasks
Interface Types and Configuration
Lab 1: Configuring a Device using Junos CLI

TOPIC 3: INTRODUCTION TO DEVOPS

Why DevOps?
The Benefits of DevOps
DevOps Goals and Best Practices

TOPIC 4: THE JUNOS AUTOMATION STACK

The Junos Automation Stack and DevOps
Junos XML API Overview
Junos REST API Overview
Junos JET API Overview
Review of Junos Automation Tools

TOPIC 5: INTRODUCTION TO XML AND XPATH

Basic XML Syntax
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Navigating the Junos XML Schema with XPath
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TOPIC 6: THE XML API AND NETCONF

NETCONF
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Languages and Libraries Used to Automate the Junos XML API
Case Study
Lab 3: Using XML and NETCONF for Automation

TOPIC 7: INTRODUCTION TO JSON AND YAML

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YAML Basics
Use of JSON and YAML in Junos Automation
Lab 4: Using JSON and YAML

TOPIC 8: INTRODUCTION TO ANSIBLE

Ansible Architecture and Capabilities
Ansible Playbook Basics
Using Ansible to Retrieve Junos Status Information
Using Ansible to Retrieve and Modify Configuration Information
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TOPIC 9: INTRODUCTION TO PYTHON

Basic Python Syntax
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Python Data Types and Variables
Python Sequences, Tuples, Sets, and Dictionaries
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The Python Interactive Interpreter
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TOPIC 10: INTRODUCTION TO XML AND XPATH

Connecting to Junos Devices with PyEZ
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TOPIC 11: THE JUNOS REST API

Overview of the Junos REST API
Methods of Connecting to the Junos REST API
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Using the Junos REST API Explorer
Using the Junos REST API to Retrieve Junos Configuration Data
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