

# Junos Platform Automation and DevOps (JAUT)

ID JAUT Price US \$ 5,000.—(excl. VAT) Duration 5 days

## Who should attend

This course benefits individuals responsible for configuring and monitoring devices running the Junos OS.

## Prerequisites

- Intermediate-level networking knowledge.
- Understanding of the Open Systems Interconnection (OSI) model and the TCP/IP protocol suite.
- Attendance of the Introduction to [Introduction to Junos Platform Automation and DevOps \(JAUT\)](#) course prior to attending this class.

## Course Objectives

- Describe the benefits of network automation
- Explain basic principles of DevOps and NRE
- Describe different approaches and tools used for Junos Automation
- Discuss how templates are used for Junos automation
- Understand Jinja2 syntax
- Describe various methods Junos PyEZ can use to connect to a Junos device
- Execute Junos RPCs using Junos PyEZ
- Explain the functionality of various Junos PyEZ utilities
- Use Jinja2 templates with Junos PyEZ
- Use Junos PyEZ Tables and Views
- Securely connect to Junos devices using Ansible
- Use advanced Ansible playbook functionality
- Work with Ansible variables
- Manage Junos device configurations using Jinja2 templates and Ansible
- Explain the use of SLAX language with Junos
- Understand basic SLAX syntax
- Describe SLAX templates, variables, and flow control statements
- Understand the Junos function library
- Explain the difference between available SLAX versions
- Explain how to create and run Junos op scripts
- Use SLAX and Python languages to develop op scripts
- Use arguments with op scripts
- Issue RPCs from op scripts
- Change the configuration with op scripts

- Describe how commit scripts can be used to make changes to the configuration
- Describe how to use commit scripts to generate custom warnings and errors during a commit
- Explain how to use SLAX and Python languages to develop commit scripts
- Configure and enable commit scripts
- Identify Junos OS events
- Create Junos OS event policies
- Create Junos OS event scripts
- Understand the use of Junos OS SNMP scripts
- Create and configure Junos OS SNMP scripts
- Explain basic Salt architecture
- Understand how Junos devices are managed with Salt
- Use Junos execution and state modules for Salt
- Understand the SLS file format
- Describe how JSNAPy can help automate Junos
- Install and configure JSNAPy
- Use JSNAPy to create snapshots
- Use JSNAPy to perform tests
- Describe the YANG language features
- Understand the syntax of YANG
- Explain how YANG is used in Junos OS
- Describe the advantages of OpenConfig
- Modify the Junos OS configuration using OpenConfig
- Describe using OpenConfig with the Junos Telemetry Interface (JTI)
- Explain what is JET
- Understand the JET Service API
- Understand the JET Notification API
- List protocols and data formats used with JET
- Develop simple JET applications
- Understand the Junos Telemetry Interface
- Provision Junos Telemetry sensors
- Explain the difference between Native and gRPC sensors
- Understand Telemetry message formats
- Explain the advantages of Contrail HealthBot
- Explain the purpose and value of ZTP
- Describe the components and operations of ZTP
- Deploy a QFX5100 Series switch using ZTP
- Setup the JET VM
- Create JET Packages

## Course Content

- Course Introduction

## Junos Platform Automation and DevOps (JAUT)

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- Junos Automation Fundamentals
- Ansible Intermediate
- SLAX
- Jinja2
- Advanced Junos PyEZ
- Junos Op Scripts
- Junos Commit Scripts
- Junos Event Policies and Event Scripts
- Junos SNMP Scripts
- JSNAPy
- YANG
- Juniper Extension Toolkit
- Junos Telemetry
- Salt
- OpenConfig
- Appendix: Zero Touch Provisioning
- Appendix: Using JET Virtual Machine

# Junos Platform Automation and DevOps (JAUT)

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## Training Centres worldwide



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