



Enterprise Computing Solutions - Education Services

TRAINING OFFERING

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Advanced Junos Platform Automation and DevOps (AJAUT)

CODE: **LENGTH:** **PRICE:**

JUN_AJAUT 32 Hours (4 days) £3,195.00

Description

This four-day course introduces students to popular open-source applications that are used to manage Junos OS devices in DevOps environments. Through demonstrations and hands-on labs, students will gain experience managing Junos OS devices using Ansible, AWX, Jenkins, Robot Framework, and NITA. This course combines these popular open-source tools with DevOps principles and practices to demonstrate the automation capabilities of Junos OS devices. This course is based on Junos OS Release 22.1R1.10.

Objectives

- Explain DevOps principles.
- Describe Infrastructure as Code.
- Describe the benefits of container applications.
- Create container images.
- Configure Docker networking.
- Deploy multi-container applications using Docker Compose.
- Describe Git.
- Create and manage a local Git repository.
- Create connections to remote repositories.
- Create and merge repository branches.
- Describe Ansible fundamentals.
- Create an Ansible DevOps environment.
- Use JSNAPy modules to verify the Junos OS device state.
- Create Ansible playbooks and roles for a Junos OS NOOB environment.
- Use NAPALM modules to manage Junos OS devices.
- Use Ansible to deploy Junos OS configuration.
- Navigate the AWX UI.
- Create AWX projects, inventory, and templates.
- Create an AWX workflow template.
- Use the AWX REST API.
- Describe the Robot Framework.
- Describe the Robot Framework project components.
- Create a Robot Framework test case for Junos OS devices.
- Create a custom Robot Framework library.
- Navigate the Jenkins user interface.
- Create Jenkins projects that integrate the Robot Framework plugin.
- Create Jenkins projects that integrate the Ansible plugin.
- Create Jenkins projects that integrate the Ansible Tower plugin.
- Create Jenkins pipelines using a Jenkinsfile.
- Explain NITA components.
- Perform NITA operations.
- Explain NITA customer use cases.
- Explain the benefits of CI/CD.
- Create a CI/CD environment.

Audience

- Individuals who want to use DevOps practices and principles to manage network devices
- Network engineers and operators who are responsible for managing Junos OS devices
- Network engineers and operators who are looking for open-source methods to deploy services

- Developers who support network operations
- Network integrators

Programme

DAY 1

- 1 Course Introduction
- 2 Introduction to DevOps
- Explain DevOps principles
- Describe infrastructure as code
- 3 Using Docker for DevOps
- Describe the benefits of container applications
- Create container images
- Configure Docker networking
- Deploy multi-container applications using Docker Compose

Lab 1: Using Docker for DevOps

DAY 2

- 4 Using Git
- Describe Git
- Create and manage a local Git repository
- Create connections to remote repositories
- Create and merge repository branches

Lab 2: Using Git

- 5 Ansible Fundamentals
- Describe Ansible fundamentals
- Create an Ansible DevOps environment

Lab 3: Ansible Fundamentals

- 6 Automating Junos OS Devices Using Ansible
- Use JSNAPy modules to verify the Junos OS device state
- Create Ansible playbooks and roles for a Junos OS NOOB environment
- Use NAPALM modules to manage Junos OS devices
- Use Ansible to deploy Junos OS configuration

Lab 4: Automating Junos OS Devices Using Ansible

DAY 3

- 7 Automating Junos OS Devices Using AWX
- Navigate the AWX UI
- Create AWX projects, inventory, and templates
- Create an AWX workflow template
- Use the AWX REST API

Lab 5: Automating Junos OS Devices Using AWX

- 8 Testing Junos OS Devices Using the Robot Framework
- Describe the Robot Framework
- Describe the Robot Framework project components
- Create a Robot Framework test case for Junos OS devices
- Create a custom Robot Framework library

Lab 6: Testing Junos OS Devices Using the Robot Framework

- 9 Automating Junos OS Devices Using Jenkins
- Navigate the Jenkins user interface
- Create Jenkins projects that integrate the Robot Framework plugin
- Create Jenkins projects that integrate the Ansible plugin
- Create Jenkins projects that integrate the Ansible Towe plugin
- Create Jenkins pipelines using a Jenkinsfile

Lab 7: Automating Junos OS Devices Using Jenkins

DAY 4

- 10 Automating Junos OS Devices Using NITA
- Explain NITA components
- Perform NITA operations
- Explain NITA customer use cases

Lab 8: Automating Junos OS Devices Using NITA

- 11 Continuous Integration and Continuous Delivery
- Explain the benefits of CI/CD
- Create a CI/CD environment

Lab 9: Continuous Integration and Continuous Delivery

A Appendix: Kubernetes Overview

- Describe Kubernetes fundamentals
- Describe the Kubernetes Objects
- Describe Kubernetes networking
- Explore connecting applications with services

Session Dates

Date	Location	Time Zone	Language	Type	Guaranteed	PRICE
02 Feb 2026	Virtual Training Class - TP	GMT	English	Classroom		£3,195.00
02 Jun 2026	Virtual Training Class - TP	BST	English	Classroom		£3,195.00

Additional Information

This training is also available as onsite training. Please contact us to find out more.