Advanced Juniper Platform Automation and NetDevOps

Category: Software Development & Programming | **Vendor:** Juniper

Duration: 32.00 hours (4 days) **26.0 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

The three-day AJAUT course gives students hands-on experience with DevOps and infrastructure as code (IaC) with devices running the Junos OS.
Students will learn the tools needed to operate an open-source DevOps environment. Specifically, students will learn to use Docker, GitLab, Ansible, The Robot Framework, and Jenkins. Students will learn and utilize the tools to build a working DevOps project using two Juniper vMX devices.

This course uses Junos OS Release 17.3R1, PyEZ 2.1, Python 2.7, Git 2.17, and Ansible 2.4.

Advanced Junos Platform Automation and DevOps (AJAUT) is an advanced-level course.

About This Course

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Who Should Attend

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

Prerequisites & Entry Requirements

General Prerequisites:

Students should have taken theJuniper Platform Automation and NetDevOps (JAUT) course or have equivalent knowledge.

Learning Outcomes

Upon successful completion of this course, participants will be able to:

- Understand DevOps and how the DevOps process can improve Junos Automation.
- Create, configure, and manage Docker Containers.
- Use GitLab as a repository for code and configuration data.
- Use Ansible and Jinja2 templates to configure multiple Junos devices.
- Use Ansible to enforce design constraints using templates.
- Use Ansible to build Ansible playbooks that work in multi-vendor environments.
- Install and configure Robot to perform automated tests on Junos devices.
- Use Jenkins to implement continuous code and configuration integration.
- Implement a DevOps automated lab testing solution.

Detailed Course Outline

Day 1 - Course Introduction

Introduction to DevOps and Event Driven Infrastructure

- DevOps
- Infrastructure as Code
- Event Driven Infrastructure (EDI)

Using Docker for DevOps

- Introduction to Docker Containers
- Installing and Configuring Docker
- Managing Docker Networking
- Managing Applications Running in Docker

- Monitoring and Troubleshooting Docker

- LAB 1: Using Docker Containers

Using GitLab as a Configuration and Code Repository

- Version Control Workflow
- Git and GitLab Explained
- GitLab Install Overview
- Creating GitLab Projects
- Creating Git Repositories
- Staging and Committing Files
- Cloning and Pushing Repository Data
- Branching and Merging
- Resolving Merge Conflicts

- LAB 2: Using GitLab

Day 2

Using Ansible to Manage Networking Devices

- Review of Ansible Basics
- Using Ansible with Jinja2 Templates
- Using Ansible to Enforce Network Design Constraints using Templates

- Using Ansible for (NOOB) deployments while maintaining Idempotency

- Creating Multi-Vendor Playbooks

- Using Ansible to Check Code In and Out of GitLab

- Using GitLab with Ansible for Automated Version Control

- Using Ansible for Auditing

- Using Ansible with Vagrant

- LAB 3: Using Ansible for Network Deployments

Day 3

Robot Framework

- Robot Overview

- Perform Automated Testing using Robot

- The pybot_jrouter Modules

- Automated Testing - Use Case

- LAB 4: Using the Robot Framework for Automated Testing on Junos Devices

Jenkins

- Jenkins Overview

- Importing Jobs into Jenkins

- Implementing Continuous Integration

- Git Module

- Robot Module

- Ansible Module

- LAB 5: Using Jenkins to Implement Continuous Integration

Skills You Will Learn:

- Understand DevOps and how the DevOps process can improve Junos Automation.
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Frequently Asked Questions

Q: What delivery options are available for Advanced Juniper Platform Automation and NetDevOps?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 4-day Advanced Juniper Platform Automation and NetDevOps course provides up to 26.0 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Advanced Juniper Platform Automation and NetDevOps training?

The training takes place over 4 day(s), with each day lasting approximately 32.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Advanced Juniper Platform Automation and NetDevOps?

Yes, we provide corporate training, dedicated training, and closed classes for Advanced Juniper Platform Automation and NetDevOps. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Advanced Juniper Platform Automation and NetDevOps, Automation and DevOps, AJAUT

Q: Why choose Nexus Human for Advanced Juniper Platform Automation and NetDevOps?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Advanced Juniper Platform Automation and NetDevOps training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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