Arrow ECS Finland Oy - Education Services

# TRAINING OFFERING

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# Introduction to the Junos Operating System (IJOS)

| CODE: | LENGTH: | PRICE: |
|---|---|---|
| JUN_IJOS | 32 Hours (4 days) | €2,995.00 |

## Description

This four-day course provides students with the foundational knowledge required to configure, verify, and troubleshoot devices that run Junos OS.
Students will gain a wide variety of practical experience with using the command-line interface (CLI). The course focuses on routers and switches,
and explains Layer 3 network interface basics, routing tables, static routes, OSPF, Layer 2 switchports, user accounts, firewall filters, routing policy,
and troubleshooting.
Particular attention is given to the power of the candidate configuration, rolling back changes, and the power of the Junos OS configuration
hierarchy. The course also discusses the key architectural components of the Junos software, the separation of the control plane and the data
plane, and the reasons that Junos OS is built for automation.
Through demonstrations and hands-on labs, students will gain experience in configuring and monitoring Junos OS and monitoring basic device
operations. This course is based on Junos OS Release 22.1R1.10.

## Objectives

After successfully completing this course, you should be able to:
• Explain the most important benefits of Junos OS and describe the kind of devices that run it.
• Explain how to remotely connect to the Junos CLI, and how to use operational mode to verify system information.
• Describe the reasons that IPv6 was created and explain how to read an IPv6 address.
• Explain the difference between a physical network interface and a logical unit.
• Demonstrate how the Junos OS CLI can reveal detailed information about network interfaces.
• Describe how Junos OS stores its configuration using a logical and hierarchical structure.
• Demonstrate how to deploy configuration in Junos OS, and how the commit process helps to prevent mistakes.
• Demonstrate the commands and keyboard shortcuts that make Junos CLI configurations more efficient.
• Describe how routes enter a routing table, and how routers choose the best routes for forwarding traffic.
• Describe how static routes manually install routing information into a router.
• Describe how routing protocols can automatically find the best path to remote destinations.
• Demonstrate how to deploy OSPF to automatically advertise and learn prefixes in a single network.
• Explain how to manage a switch that runs Junos OS.
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• Demonstrate how to enable some crucial Junos OS administrative features.
• Describe the most important things to consider when deploying a new device that runs Junos OS.
• Demonstrate how knowledge of the underlying Junos OS architecture can bring advantages to network operators.
• Demonstrate how a knowledge of the underlying Junos OS software helps you when upgrading Junos and troubleshooting networks.
• Demonstrate the most important and useful tools available in Junos OS that can help

you fix real-world problems.
• Explain how Junos OS can filter and manipulate traffic in real time using stateless firewall filters.
• Explain how to configure stateless firewall filters that accept or discard packets.
• Demonstrate some powerful CLI configuration options that can increase your productivity.
• Describe the advantages and configuration of a variety of different interface types and features.
• Demonstrate how the architecture of Junos OS is built with automation in mind.
• Explain how to continue your studies once the course has been completed.
Additional objectives for self-study:
• Explain how to utilize backup static routes, routing instances, OSPF areas, and BGP.
• Deploy some of the advanced features available within a firewall filter.
• Describe advanced troubleshooting and monitoring features available in Junos OS.
• Demonstrate some advanced device administration features.
• Describe how routing policies control what prefixes can enter the routing table, and what prefixes can be advertised by protocols.
• Describe the tasks involved in upgrading Junos OS.
• Use the J-Web graphical interface to make configuration changes and monitor and maintain Junos devices.
• Describe the most common network cables in use today, and the reasons for using the Ethernet protocol in modern networks.
• Describe how IP addresses create end-to-end network communication.
• Explain how switches enable Layer 2 Ethernet communication between hosts on a shared LAN segment.
• Describe the difference between TCP and UDP.

## Prerequisites

• Students are highly recommended to have watched the self-study Getting Started with Networking (e-learning) video series before attending this course.
• Basic understanding of IPv4 and IPv6.
• Basic understanding of Ethernet and MAC address learning.
• Basic understanding of TCP and UDP.
• Basic understanding of the layered OSI and TCP/IP models.

## Session Dates

Aikataulutamme kiinnostuksen mukaan. Ota yhteyttä

## Additional Information

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