

# Introduction to the Junos Operating System

A 3 day **Hands on** training course



## Description

This course provides students with the foundational knowledge required to work with the Junos OS and to configure Junos devices. The course provides a brief overview of the Junos device families and discusses the key architectural components of the software. The course then delves into foundational routing knowledge and configuration examples including general routing concepts, routing policy, and firewall filters. Delegates will gain experience in configuring and monitoring the Junos OS and monitoring basic device operations. This course is based on Junos OS Release 15.1X49.



## Key outcomes

By the end of the course delegates will be able to:

- ✓ Describe the design architecture of the Junos OS.
- ✓ Navigate within the Junos CLI and perform tasks within the CLI operational and configuration modes.
- ✓ Configure and monitor network interfaces.
- ✓ Navigate within the Junos J-Web interface.
- ✓ Identify where you might use firewall filters.
- ✓ Explain basic routing operations and concepts.
- ✓ Identify key factors in Juniper Networks' security.



## Training approach

This structured course uses Instructor Led Training to provide the best possible learning experience. Small class sizes ensure students benefit from our engaging and interactive style of teaching with delegates encouraged to ask questions throughout the course. Quizzes follow each major section allowing checking of learning. Hands on sessions are used throughout to allow delegates to consolidate their new skills.



## Details

### Who will benefit?

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

### Prerequisites

Introduction to Data communications and networking.

**Duration:** 3 days

Overall rating:



Generic training	Small class sizes	Hands On training	Our courseware	Customise your course
Generic training compliments product specific courses covering the complete picture of all relevant devices including the protocols "on the wire".	We limit our maximum class size to 8 delegates; often we have less than this. This ensures optimal interactivity between delegates and instructor.	The majority of our courses use hands on sessions to reinforce the theory.	We write our own courses; courseware does not just consist of slides and our slides are diagrams not bullet point text.	Please contact us if you would like a course to be customised to meet your specific requirements. Have the course your way.
<i>"Friendly environment with expert teaching that teaches the why before the how."</i> G.C. Fasthosts	<i>"Excellent course. The small class size was a great benefit..."</i> M.B. IBM	<i>"Not many courses have practice added to it. Normally just the theoretical stuff is covered."</i> J.W. Vodafone	<i>"Comprehensive materials that made the course easy to follow and will be used as a reference point."</i> V.B. Rockwell Collins	<i>"I was very impressed by the combination of practical and theory. Very informative. Friendly approachable environment, lots of hands on."</i> S.R. Qinetiq

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## Course content

### Junos Operating System Fundamentals

- The Junos OS
- Traffic Processing
- Overview of Junos Devices

### User Interface Options—The Junos CLI

- User Interface Options
- The Junos CLI: CLI Basics
- The Junos CLI: Operational Mode
- The Junos CLI: Configuration Mode

### User Interface Options—The J-Web Interface

- The J-Web GUI
- Configuration
- Lab 1: User Interface Options

### Initial Configuration

- Factory-Default Configuration
- Initial Configuration
- Interface Configuration
- Lab 2: Initial System Configuration

### Secondary System Configuration

- User Configuration and Authentication
- System Logging and Tracing
- Network Time Protocol
- Archiving Configurations
- SNMP
- Lab 3: Secondary System Configuration

### Operational Monitoring and Maintenance

- Monitoring Platform and Interface Operation
- Network Utilities
- Maintaining the Junos OS
- Password Recovery
- System Clean-Up
- Lab 4: Operational Monitoring and Maintenance

### Interface Configuration Examples

- Review of the Interface Configuration Hierarchy
- Interface Configuration Examples
- Using Configuration Groups

### Routing Fundamentals

- Routing Concepts: Overview of Routing
- Routing Concepts: The Routing Table
- Routing Concepts: Routing Instances
- Static Routing
- Dynamic Routing
- Lab 5: Routing Fundamentals

### Routing Policy

- Routing Policy Overview
- Case Study: Routing Policy
- Lab 6: Routing Policy

### Firewall Filters

- Firewall Filters Overview
- Case Study: Firewall Filters
- Unicast Reverse-Path-Forwarding Checks
- Lab 7: Firewall Filters

### Class of Service

- CoS Overview
- Traffic Classification
- Traffic Queueing
- Traffic Scheduling
- Case Study: CoS
- Lab 8: Class of Service

### JTAC Procedures

- Opening a Support Case
- Customer Support Tools
- Transferring Files to JTAC

### Juniper Security Concepts

- Security Challenges
- Juniper's Security Focus

### Appendix A: IPv6 Fundamentals

- IPv6 Addressing
- Protocols and Services
- Configuration

