



Enterprise Computing Solutions - Education Services

TRAINING OFFERING

You can reach us at:

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CODE:	LENGTH:	PRICE:
JUN_JCOS	16 Hours (2 days)	£1,700.00

Description

This two-day course provides students with advanced class-of-service (CoS) knowledge and configuration examples. The course begins with an overview of CoS before going into classification, policing, scheduling, and rewriting.

The course then covers class based forwarding and finishes with a case study. Through demonstrations and hands-on labs, students will gain experience in configuring and verifying Junos CoS features.

This course is based on the Junos operating system Release 16.2R1.6.

Junos Class of Service (JCOS) is an advanced level course. Relevant Juniper Product

- Junos OS
- M Series
- MX Series
- PTX Series
- SRX Series
- T Series
- Service Provider Routing and Switching Track

Objectives

- Understand the history and evolution of CoS.
- Identify the CoS fields in various packet headers.
- List the CoS processing stages on devices running the Junos OS.
- Identify the default CoS settings on devices running the Junos OS.
- Configure and verify behavior aggregate (BA) and multifield (MF) classification.
- Configure and verify two-color and tricolor marking policers.
- Configure and verify schedulers and their components.
- Configure and verify the multiple levels of hierarchical schedulers.
- Configure and verify packet header rewriting.
- Configure and verify class-based forwarding.
- Create a CoS configuration based on a set of design requirements

Audience

This course benefits individuals responsible for configuring and monitoring devices running the Junos OS, especially those in a service provider environment. It also benefits individuals responsible for designing networks containing devices running the Junos OS.

Prerequisites

Students should attend the Introduction to the Junos Operating System (IJOS) course and the Junos Intermediate Routing (JIR) course or have equivalent experience prior to attending this class. General knowledge of CoS concepts is also helpful.

Programme

- Packet Classification
 - Classification Overview
 - Forwarding Classes and Packet Loss Priority
 - Fixed Classification
 - Multifield Classification
 - Behavior Aggregate Classification

LAB 1: Configuring Packet Classification

- Policing
 - Policing Overview
 - Single-Rate Two-Color Policer
 - Tricolor Marking Policers
 - Hierarchical Policers
 - Application—Directly on an Interface
 - Application—Within a Firewall Filter

CoS Overview

- CoS History and Evolution
- CoS and DiffServ
- CoS Fields in Packet Headers

Day 1 Course Introduction • CoS Processing

LAB 2: Configuring Policers

- Hierarchical Scheduling
 - Hierarchical Scheduling Overview
 - Scheduler Modes
 - Hierarchical Scheduling Levels
 - Throughput Example
 - Remaining Traffic
 - Queue Properties in a Hierarchical Scheduling Context
 - Putting It All Together

Scheduling

- Scheduling Overview
- Transmission Rate
- Queue Priority
- Delay Buffers
- Drop Profiles and Drop Profile Maps
- Scheduling Configuration

LAB 4: Configuring Hierarchical Schedulers

Rewrite Rules

- Packet Header Rewrite Overview
- Rewrite Rules and Tables
- Rewrite Combinations

LAB 3: Configuring Schedulers

Day 2 LAB 5: Configuring Rewrite Rules

CoS-Based Forwarding

- CBF Overview
- CBF Configuration

LAB 6: Configuring CBF

Please note that the following Appendix/Case Study are not covered as standard during the training course unless requested by the customer, and agreed with Arrow, upon booking:

Appendix A: CoS Processing on M Series, T Series, and MX Series Devices

- M Series and T Series Architecture
- M Series and T Series CoS Packet Handling
- IQ2 PIC CoS Packet Handling
- MX Series (DPC and MPC/MIC) Architecture and CoS Packet Handling Case Study
- VoIP Case Study Overview
- VoIP Case Study: Ingress Node
- VoIP Case Study: Transit and Egress Nodes

LAB 7: Case Study

Follow on courses

- Advanced Junos Service Provider Routing (AJSPR)
- Junos Layer 2 VPNs (JL2V) Junos Layer 3 VPNs (JL3V)

Recommended Next Courses • Junos Multicast Routing (JMR) JNCIE-SP Bootcamp

Test and Certification

Associated Certification JNCIP-SP

Session Dates

Date	Location	Time Zone	Language	Type	Guaranteed	PRICE
22 May 2024	Virtual Training Class - TP	BST	English	Instructor Led Online		£1,700.00

Additional Information

[This training is also available as onsite training. Please contact us to find out more.](#)