Enterprise Computing Solutions - Education Services

TRAINING OFFERING

You can reach us at:

Arrow Enterprise Computing Solutions Ltd, Part 1st Floor, Suite 1D/1, Central House, Otley Road, Harrogate, HG3 1UG

Email: educationteam.ecs.uk@arrow.com
Phone: 0870 251 1000

Junos Class of Service (JCOS)

CODE:	LENGTH:	PRICE:
JUN_JCOS	16 Hours (2 days)	£1,650.00

Description

This two-day intermediate level 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 two case studies. Through demonstrations and hands-on labs, students will gain experience in configuring and verifying Junos CoS features. This course is based on Junos OS Release 23.2R2.21.

Objectives

• Identify the fundamentals of CoS.
• Identify and configure packet classification.
• Describe and configure policers.
• Configure firewall applications.
• Identify and configure scheduling components.
• Identify and configure the components of hierarchical scheduling.
• Identify and configure rewrite rules.
• Describe and configure CoS-based forwarding.
• Discuss and configure an end-to-end VoIP case study.
• Explain the high-level design for backend and compute networks.

Audience

Individuals responsible for network administration who configure and administer class-of-service features on Juniper Networks® MX Series Universal Routers running Junos OS

Prerequisites

• Basic networking knowledge
• Experience and familiarity with Junos OS
• Familiarity with the Junos CLI
• Completion of Introduction to the Junos Operating System course
• Completion of the Junos Intermediate Routing course

Programme

DAY 1
1 Class-of-Service Overview
• Discuss the history and evolution of CoS
• Define the characteristics of CoS and Differentiated Services
• Identify the CoS fields in packet headers
• Discuss the processing of CoS on Junos platforms
2 Packet Classification
• Discuss classification overview
• Identify forwarding classes and packet loss priority
• Configure fixed classification
• Configure multifield classification
• Configure behavior aggregate classification
Lab 1: Configuring Packet Classification

3 Policing
• Review policing
• Configure a single-rate two-color-policer
• Configure tricolor marking policers
• Configure hierarchical policers
4 Interface and Firewall Applications
• Configure an interface application
• Configure a firewall application
Lab 2: Configuring Policers
5 Scheduling
• Describe scheduling components
• Describe transmission rate
• Describe queue priority
• Describe delay buffers
• Describe drop profiles
• Configure scheduling components
Lab 3: Configuring Schedulers
DAY 2
6 Hierarchical Scheduling
• Describe the components of hierarchical scheduling
• Configure hierarchical scheduling
Lab 4: Configuring Hierarchical Schedulers
7 Rewrite Rules
• Identify the purpose of rewriting packet headers
• Configure and apply default and custom rewrite rules
Lab 5: Configuring rewrite rules
8 CoS-Based Forwarding
• Identify the purpose of CoS-based forwarding
• Configure CoS-based forwarding
Lab 6: Configuring Class Based Forwarding
9 CoS VoIP Case Study
• Review the case study
• Configure the ingress node
• Configure the transit and egress nodes
10 Congestion Control in Machine Learning Networks
• Describe IP services for congestion avoidance
• Configure a lossless IP fabric for RoCEv2 traffic
• Validate congestion avoidance parameters

Test and Certification

RELATED CERTIFICATION
JNCIP-SP JNCIS-SP

Session Dates

On request. Please Contact Us

Additional Information

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