



**Enterprise Computing Solutions - Education Services**

## **TRAINING OFFERING**

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**Du kan nå os her**

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CODE:	LENGTH:	PRICE:
JUN_JIR	16 Hours (2 dage)	kr 11,539.00

## Description

This two-day course provides students with intermediate routing knowledge and configuration examples. The course includes an overview of protocol-independent routing features, load balancing and filter-based forwarding, OSPF, BGP, IP tunneling, and high availability (HA) features.

Through demonstrations and hands-on labs, students will gain experience in configuring and monitoring the Junos OS and monitoring device operations. This course uses Juniper Networks vSRX Series Services Gateways for the hands-on component, but the lab environment does not preclude the course from being applicable to other Juniper hardware platforms running the Junos OS. This course is based on Junos OS Release 15.1X49-D70.3.

## Objectives

- Describe typical uses of static, aggregate, and generated routes.
- Configure and monitor static, aggregate, and generated routes.
- Explain the purpose of Martian routes and add new entries to the default list.
- Describe typical uses of routing instances.
- Configure and share routes between routing instances.
- Describe load-balancing concepts and operations.
- Implement and monitor Layer 3 load balancing.
- Illustrate benefits of filter-based forwarding.
- Configure and monitor filter-based forwarding.
- Explain the operations of OSPF.
- Describe the role of the designated router.
- List and describe OSPF area types.
- Configure, monitor, and troubleshoot OSPF.
- Describe BGP and its basic operations.
- Name and describe common BGP attributes.
- List the steps in the BGP route selection algorithm.
- Describe BGP peering options and the default route advertisement rules.
- Configure and monitor BGP.
- Describe IP tunneling concepts and applications.
- Explain the basic operations of generic routing encapsulation (GRE) and IP over IP (IP-IP) tunnels.
- Configure and monitor GRE and IP-IP tunnels.
- Describe various high availability features supported by the Junos OS.
- Configure and monitor some of the highlighted high availability features

## Audience

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

## Prerequisites

Students should have basic networking knowledge and an understanding of the Open Systems Interconnection (OSI) reference model and the TCP/IP protocol suite. Students should also attend the Introduction to the Junos Operating System (IJOS) course prior to attending this class.

## Programme

## **Day 1**

### **1 COURSE INTRODUCTION**

#### **2 Protocol-Independent Routing**

- Static Routes
- Aggregated Routes
- Generated Routes
- Martian Addresses
- Routing Instances

LAB 1: Protocol-Independent Routing

#### **3 Load Balancing and Filter-Based Forwarding**

- Overview of Load Balancing
- Configuring and Monitoring Load Balancing
- Overview of Filter-Based Forwarding
- Configuring and Monitoring Filter-Based Forwarding

LAB 2: Load Balancing and Filter-Based Forwarding

#### **4 Open Shortest Path First**

- Overview of OSPF
- Adjacency Formation and the Designated Router Election
- OSPF Scalability
- Configuring and Monitoring OSPF
- Basic OSPF Troubleshooting

LAB 3: Open Shortest Path First

## **Day 2**

#### **5 Border Gateway Protocol**

- Overview of BGP
- BGP Attributes
- IBGP Versus EBGP
- Configuring and Monitoring BGP

LAB 4: Border Gateway Protocol

#### **6 IP Tunneling**

- Overview of IP Tunneling
- GRE and IP-IP Tunnels
- Implementing GRE and IP-IP Tunnels

LAB 5: IP Tunneling

#### **7 High Availability**

- Overview of High Availability Networks
- Graceful Restart
- Graceful RE Switchover
- Nonstop Active Routing
- BFD
- VRRP

LAB 6: High Availability

### **Follow on courses**

- Advanced Junos Enterprise Switching (AJEX)

- Advanced Junos Enterprise Routing (AJER)
- Junos Multicast Routing (JMR)
- Junos Class of Service (JCOS)
- Advanced Junos Service Provider Routing (AJSPR)
- Junos Layer 3 VPNs (JL3V)
- Junos Layer 2 VPNs (JL2V)

## Test and Certification

JNCIS-ENT  
JNCIS-SP

## Session Dates

På anmodning. [Kontakt os venligst](#)

## Yderligere Information

[Denne træning er også tilgængelig som træning på stedet. Kontakt os for at finde ud af mere.](#)