



# JUNOS SECURITY (JSEC)

Course Code: 6204

Learn to configure and monitor SRX Series devices while preparing for the JNCIS-SEC exam through instructor-led demonstrations and hands-on training.

This five-day course covers the configuration, operation, and implementation of SRX Series Services Gateways in a typical network environment. Key topics within this course include security zones, security policies, Network Address Translation (NAT), IPsec VPNs, and chassis clustering.

Through demonstrations and hands-on labs, students will gain experience in configuring the Junos OS and monitoring device operations of Junos security devices. This course uses Juniper Networks SRX Series Services Gateways for the primary hands-on component.

This course is based on Junos OS Release 17.4R1.16 and the vSRX virtual appliance.

## What You'll Learn

After successfully completing this course, you should be able to perform the following:

- Describe traditional routing and security and the current trends in internetworking.
- Provide an overview of SRX Series devices and software architecture.
- Describe the logical packet flow and session creation performed by SRX Series devices.
- Describe, configure, and monitor zones.
- Describe, configure, and monitor security policies.
- Describe, configure, and monitor user firewall authentication
- Describe various types of network attacks.
- Configure and monitor Screen options to prevent network attacks.
- Explain, implement, and monitor NAT, as implemented on Junos security platforms.
- Explain the purpose and mechanics of IP Security (IPsec) virtual private networks (VPNs).
- Implement and monitor policy-based and route-based IPsec VPNs.
- Describe, configure, and monitor high availability chassis clusters.
- Describe how to deploy and manage vSRX.
- Describe and configure Group VPNs.

- Describe and configure ADVPNs.
- Troubleshoot chassis clusters, IPsec VPNs, zones, and Security Policies

### Who Needs to Attend

- Network engineers, administrators, support personnel, and reseller support personnel using SRX Series devices
- Anyone seeking JNCIS-SEC certification



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CLASSROOM LIVE

\$5,200 CAD

5 days

## Classroom Live Outline

1. Course Introduction
2. Introduction to Junos Security

Traditional Routing and Security

Architecture Overview of Junos Security Devices

Logical Packet Flow through Junos Security Devices

J-Web Overview

1. Zones and Screen Options

Zones Overview

Zone Configuration

Monitoring Security Zones

Configuring Screen Options

Screen Options Case Study

1. Security Policies

Security Policy Overview

Policy Components

Security Policy Configuration in J-Web

Policy Case Study (CLI)

Policy Case Study (J-Web)

- 1. Advanced Security Policy
  - Session Management
  - Junos ALGs
  - Policy Scheduling
  - Logging
  - Advanced Security Policy

- 1. Troubleshooting Zones and Policies
  - General Troubleshooting for Junos Devices
  - Troubleshooting Tools
  - Troubleshooting Zones and Policies
  - Zone and Policy Case Studies

- 1. Network Address Translation
  - NAT Overview
  - Source NAT
  - Destination NAT
  - Static NAT
  - Proxy ARP

- 1. Advanced NAT
  - Persistent NAT
  - DNS Doctoring
  - IPv6 with NAT
  - Advanced NAT Scenarios
  - Troubleshooting NAT

- 1. IPsec VPN Concepts
  - VPN Types
  - Secure VPN Requirements
  - IPsec Tunnel Establishment
  - IPsec Traffic Processing

## 1. IPsec VPN Implementation

IPsec VPN Configuration

IPsec VPN Case Study

Proxy IDs and Traffic Selectors

Monitoring IPsec VPNs

## 1. Hub-and-Spoke VPNs

Hub-and-Spoke VPN Overview

Hub-and-Spoke Configuration and Monitoring

## 1. Group VPNs

Group VPN Overview

Group VPN Configuration and Monitoring

## 1. PKI and ADVPNs

Public Key Infrastructure Overview

PKI Configuration

ADVPN Overview

ADVPN Configuration and Monitoring

## 1. Advanced IPsec

NAT with IPsec

Class of Service with IPsec

Best Practices

Routing OSPF over IPsec

IPsec with Overlapping Addresses

IPsec with Dynamic Gateway IP Addresses

## 1. Troubleshooting IPsec

IPsec Troubleshooting Overview

Troubleshooting IKE Phase 1 and 2

IPsec Logging

IPsec Case Studies

1. Chassis Cluster Concepts

Chassis Clustering Overview

Chassis Cluster Components

Chassis Cluster Operation

1. Chassis Clutter Implementation

Chassis Cluster Configuration

Advanced Chassis Cluster Options

1. Troubleshooting Chassis Clusters

Troubleshooting Chassis Clusters

Chassis Cluster Case Studies

1. SRX Series Hardware

Branch SRX Platform Overview

Mid-Range SRX Platform Overview

High-End SRX Platform Overview

SRX Traffic Flow and Distribution

SRX Interfaces

1. Virtual SRX

Virtualization Overview

Network Virtualization and SDN

Overview of the Virtual SRX

Deployment Scenarios

Integration with AWS

Classroom Live Labs

LAB 1: Zones and Screen Options

LAB 2: Security Policies

Lab 3: Advanced Policy Options

Lab 4: Troubleshooting Security Zones and Policies

Lab 5: Network Address Translation

Lab 6: Advanced NAT

Lab 7: Implementing IPsec VPNs

Lab 8: Hub-and-Spoke VPNs

Lab 9: Group VPNs

Lab 10: PKI and ADVPNs

Lab 11: Advanced IPsec VPN Solutions

Lab 12: Troubleshooting IPsec

Lab 13: Implementing Chassis Clusters

Lab 14: Troubleshooting Chassis Clusters



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VIRTUAL CLASSROOM LIVE

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IPsec VPN Configuration

IPsec VPN Case Study

Proxy IDs and Traffic Selectors

Monitoring IPsec VPNs

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Lab 14: Troubleshooting Chassis Clusters



Global Knowledge.

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PRIVATE GROUP TRAINING

5 days

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