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## Junos Security

**Duration: 3 Days**    **Course Code: JSEC**

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### Overview:

The Junos Security (JSEC) course covers configuration, operation, and implementation of SRX Series Services Gateways in a typical network environment. Key topics within this course include security technologies such as security zones, security policies, intrusion detection and prevention (IDP), Network Address Translation (NAT), and high availability clusters, as well as details pertaining to basic implementation, configuration, and management.

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### Target Audience:

This course is designed for: Operators of SRX Series devices. These operators include network engineers, administrators, support personnel, and reseller support personnel.

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### Objectives:

- Upon completing this course, the learner will be able to meet these overall objectives:
  - 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 firewall user authentication.
  - Describe various types of network attacks.
  - Configure and monitor SCREEN options to prevent network attacks.
  - Explain, implement, and monitor NAT 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.
  - Utilize and update the IDP signature database.
  - Configure and monitor IDP policy with policy templates.
  - Describe, configure, and monitor high availability chassis clusters.
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### Prerequisites:

The knowledge and skills that a learner must have before attending this course are as follows:

- Students should have basic networking knowledge and an understanding of the Open Systems Interconnection (OSI) reference model and the TCP/IP protocol suite. To gain the prerequisite skills and knowledge, Juniper strongly recommends the knowledge of the following courses:
- Introduction to the Junos Operating System (IJOS)
- Junos Routing Essentials (JRE)

### Testing and Certification

Recommended preparation for:

- JN0-332 -Juniper Networks Certified Internet Specialist (JNCIS-SEC)  
JSEC is one of the courses required for the **Juniper Networks Certified Internet Specialist (JNCIS-SEC)** Certification
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## Follow-on-Courses:

- JUTM - Junos Unified Threat Management

JSEC and JUTM are the courses required for the **Juniper Networks Certified Internet Specialist (JNCIS-SEC)** Certification.

If you are after the **Juniper Networks Certified Internet Professional (JNCIP-SEC)** Certification, you should attend the following courses after JSEC and JUTM:

- AJSEC - Advanced Junos Security
- JIPS - Junos Intrusion Prevention System Functionality

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## Content:

### Introduction to Junos security platforms

- Traditional Routing
- Traditional Security
- Breaking the Tradition
- The Junos OS Architecture

### Zones

- The Definition of Zones
- Zone Configuration
- Monitoring Security Zones

### Security Policies

- Security Policy Overview
- Junos ALGs
- Policy Components
- Verifying Policy Operation
- Policy Scheduling and Rematching
- Policy Case Study

### Firewall User Authentication

- Firewall User Authentication Overview
- Pass-Through Authentication
- Web Authentication
- Client Groups
- Using External Authentication Servers
- Verifying Firewall User Authentication

### SCREEN Options

- Multilayer Network Protection
- Stages and Types of Attacks
- Using Junos SCREEN Options—Reconnaissance Attack Handling
- Using Junos SCREEN Options—Denial of Service Attack Handling
- Using Junos SCREEN Options—Suspicious Packets Attack Handling
- Applying and Monitoring SCREEN Options

### Network Address Translation

- NAT Overview
- Source NAT Operation and Configuration
- Destination NAT Operation and Configuration
- Static NAT Operation and Configuration
- Proxy ARP
- Monitoring and Verifying NAT Operation

### IPsec VPNs

- VPN Types
- Secure VPN Requirements
- IPsec Details
- Configuration of IPsec VPNs
- IPsec VPN Monitoring

### Introduction to Intrusion Detection and Prevention

- Introduction to Junos IDP
- IDP Policy Components and Configuration
- Signature Database
- Case Study: Applying the Recommended IDP Policy
- Monitoring IDP Operation

### High Availability Clustering

- High Availability Overview
- Chassis Cluster Components
- Advanced Chassis Cluster Topics

### High Availability Clustering Implementation

- Chassis Cluster Operation
- Chassis Cluster Configuration
- Chassis Cluster Monitoring

## Further Information:

For More information, or to book your course, please call us on +254 713 027 191

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