Junos Security (JSEC)



This course covers the 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.

Duration: 3 Days

Prerequisites:

- basic networking knowledge
- understanding of the (OSI) reference model
- Strong Understanding of TCP/IP protocol suite.
- Completion of INCIA

Course Outline:

Chapter 1: Course Introduction

Chapter 2: Introduction to Junos Security

- > Traditional Routing
- > Traditional Security
- > The Junos OS Architecture

Chapter 3: Zones

- > The Definition of Zones
- > Zone Configuration
- Monitoring Security Zones
- ➤ Lab 1: Configuring and Monitoring Zones

Chapter 4: Security Policies

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

- Policy Case Study
- ➤ Lab 2: Security Policies

Day 2

Chapter 5: Firewall User Authentication

- > Firewall User Authentication Overview
- Pass-Through Authentication
- Web Authentication
- Client Groups
- Using External Authentication Servers
- ➤ Verifying Firewall User Authentication
- ➤ Lab 3: Configuring Firewall Authentication

Chapter 6: 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
- ➤ Lab 4: Implementing Screen Options

Chapter 7: 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
- ➤ Lab 5: Network Address Translation

Day 3

Chapter 8: IPsec VPNs

- VPN Types
- > Secure VPN Requirements
- > IPsec Details
- Configuration of IPsec VPNs
- > IPsec VPN Monitoring
- ➤ Lab 6: Implementing IPsec VPNs

Chapter 9: 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
- ➤ Lab 7: Implementing IDP

Chapter 10: High Availability Clustering Theory

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

Chapter 11: High Availability Clustering Implementation

- Chassis Cluster Operation
- > Chassis Cluster Configuration
- Chassis Cluster Monitoring
- ➤ Lab 8: Implementing High Availability Techniques

Appendix A: SRX Series Hardware and Interfaces

- > Branch SRX Platform Overview
- ➤ High End SRX Platform Overview
- > SRX Traffic Flow and Distribution
- > SRX Interfaces