



## TRAINING OFFERING

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| CODE:     | LENGTH:           | PRICE:    |
|-----------|-------------------|-----------|
| JUN_AJSEC | 32 Hours (4 days) | £2,695.00 |

## Description

This four-day course, which is designed to build off the current Juniper Security (JSEC) offering, delves deeper into Junos security, next-generation security features, and ATP supporting software.

Through demonstrations and hands-on labs, you will gain experience in configuring and monitoring the advanced Junos OS security features with advanced coverage of advanced logging and reporting, next generation Layer 2 security, next generation advanced anti-malware with Juniper ATP On-Prem and SecIntel.

This course uses Juniper Networks SRX Series Services Gateways for the hands-on component.

This course is based on Junos OS Release 20.1R1.11, Junos Space Security Director 19.4, Juniper ATP On-Prem version 5.0.7, and Juniper Secure Analytics 7.4.0.

- Security
- Junos OS
- SRX Series
- vSRX Series
- Sky ATP

Course Level Advanced Junos Security (AJSEC) is an advanced-level course. Relevant Juniper Product • SDSN

## Objectives

- Demonstrate understanding of concepts covered in the prerequisite Juniper Security courses.
- Describe the various forms of security supported by the Junos OS.
- Describe the Juniper Connected Security model.
- Describe Junos security handling at Layer 2 versus Layer 3.
- Implement next generation Layer 2 security features.
- Demonstrate understanding of Logical Systems (LSYS).
- Demonstrate understanding of Tenant Systems (TSYS).
- Implement virtual routing instances in a security setting.
- Describe and configure route sharing between routing instances using logical tunnel interfaces.
- Describe and discuss Juniper ATP and its function in the network.
- Describe and implement Juniper Connected Security with Policy Enforcer in a network.
- Describe firewall filters use on a security device.
- Implement firewall filters to route traffic.
- Explain how to troubleshoot zone problems.
- Describe the tools available to troubleshoot SRX Series devices.
- Describe and implement IPsec VPN in a hub-and-spoke model.
- Describe the PKI infrastructure.
- Implement certificates to build an ADVPN network.
- Describe using NAT, CoS and routing protocols over IPsec VPNs.
- Implement NAT and routing protocols over an IPsec VPN.
- Describe the logs and troubleshooting methodologies to fix IPsec VPNs.
- Implement working IPsec VPNs when given configuration that are broken.
- Describe Incident Reporting with Juniper ATP On-Prem device.
- Configure mitigation response to prevent spread of malware.
- Explain SecIntel uses and when to use them.
- Describe the systems that work with SecIntel.
- Describe and implement advanced NAT options on the SRX Series devices.
- Explain DNS doctoring and when to use it.
- Describe NAT troubleshooting logs and techniques.

## Audience

This course benefits individuals responsible for implementing, monitoring, and troubleshooting Junos security components.

## Prerequisites

Students should have a strong level of TCP/IP networking and security knowledge.

Students should also attend the Introduction to the Junos Security (IJSEC) and Junos Security (JSEC) courses prior to attending this class.

## Programme

Junos Layer 2 Packet Handling and Security Features

- Transparent Mode Security
  - Secure Wire
  - Layer 2 Next Generation Ethernet Switching
  - MACsec
- LAB 1: Implementing Layer 2 Security

Firewall Filters

- Using Firewall Filters to Troubleshoot
- Routing Instances
- Filter-Based Forwarding

Day 1 Course Introduction LAB 2: Implementing Firewall Filters

Hub-and-Spoke VPN

- Overview
- Configuration and Monitoring

LAB 4: Implementing Hub-and-Spoke VPNs

Advanced NAT

- Configuring Persistent NAT
- Demonstrate DNS Doctoring
- Configure IPv6 NAT Operations
- Troubleshooting NAT

LAB 5: Implementing Advanced NAT Features

Logical and Tenant Systems

- Overview
- Administrative Roles
- Differences Between LSYS and TSYS
- Configuring LSYS
- Configuring TSYS

Day 2 LAB 6: Implementing TSYS

Troubleshooting IPsec

- IPsec Troubleshooting Overview
- Troubleshooting IKE Phase 1 and 2
- IPsec Logging
- IPsec Case Studies

LAB 9: Troubleshooting IPsec

Advanced Juniper ATP On-Prem

- Collectors
- Private Mode
- Incident Response
- Deployment Models

LAB 11: Implementing Advanced ATP On-Prem

Automated Threat Mitigation

- Identify and Mitigate Malware Threats
- Automate Security Mitigation

LAB 12: Identifying and Mitigating Threats

Please note that the following Appendix are not covered as standard during the training course unless requested by the customer, and agreed with Arrow, upon booking:

Group VPNs

- Overview
- Implementing Group VPNs

Troubleshooting Zones and Policies

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

LAB 3: Troubleshooting Zones and Policies

PKI and ADVPNs

- PKI Overview
  - PKI Configuration
  - ADVPN Overview
  - ADVPN Configuration and Monitoring
- LAB 7: Implementing ADVPNs

Advanced IPsec

- NAT with IPsec
- Class of Service with IPsec
- Best Practices
- Routing OSPF over VPNs

Day 3 LAB 8: Implementing Advanced IPsec Solutions

SecIntel

- Security Feed
- Encrypted Traffic Analysis
- Use Cases for SecIntel

LAB 10: Implementing SecIntel

Juniper Connected Security

- Security Models

Day 4 • Enforcement on Every Network Device

## Follow on courses

Recommended Next Course JNCIE-SEC Bootcamp

## Test and Certification

Exams can be purchased and scheduled at an additional cost – please ask for details.

## Session Dates

| Date        | Location          | Time Zone | Language | Type                  | Guaranteed | PRICE     |
|-------------|-------------------|-----------|----------|-----------------------|------------|-----------|
| 30 Sep 2024 | Virtual Classroom | BST       | English  | Instructor Led Online |            | £2,695.00 |
| 16 Dec 2024 | Virtual Classroom | GMT       | English  | Instructor Led Online |            | £2,695.00 |

## Additional Information

[This training is also available as onsite training. Please contact us to find out more.](#)