



TRAINING OFFERING

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CODE:	LENGTH:	PRICE:
JUN_JSM	32 Hours (4 days)	£3,400.00

Description

This four-day course is designed to provide students with the knowledge required to configure and manage subscriber management on devices running the Junos operating system. This course focuses on the main configuration components of subscriber management, including subscriber authentication, authorization, and accounting (AAA), Dynamic Host Configuration Protocol (DHCP) local server and DHCP relay and proxy agent, the Point-to-Point Protocol (PPP), subscriber addressing, dynamic profiles, subscriber interfaces, Layer 3 and Layer 2 wholesale services, Pseudowire Headend Termination (PWHT), Layer 2 Tunneling Protocol (L2TP), dynamic firewall services, subscriber class of service (CoS), basic Network Address Translation (NAT) and Carrier-grade NAT (CGNAT) functions, Juniper Address Pool Manager, High-availability, Juniper BNG CUPS introduction, and Subscriber Secure Policy (SSP, or lawful intercept). Through demonstrations and hands-on labs, students will gain experience in configuring, monitoring, and troubleshooting subscriber management features on MX Series routers running Junos OS.

RELATED JUNIPER PRODUCTS

COURSE LEVEL • Junos OS

This course is based on Junos OS Release 22.4R3.25 Intermediate

• MX Series

Objectives

- Describe the fundamentals of subscriber management.
- Evaluate and configure subscriber management services.
- Configure L2TP subscriber access.
- Describe and configure subscriber management interfaces.
- Describe and configure dynamic profiles.
- Describe and configure Point-to-Point protocol over Ethernet (PPPoE) Services.
- Describe and configure wholesale services.
- Describe and configure L2TP services.
- Describe subscriber management high availability.
- Describe and configure PWHT.
- Describe and configure subscriber CoS.
- Describe and configure dynamic firewall services.
- Describe carrier-grade NAT and secure policy.
- Describe the concepts of BNG CUPS.
- Explain Address Pool Manager fundamentals.

Audience

Network administrators who configure and administer subscriber management features on MX routers running the Junos OS

Prerequisites

- A strong base of networking fundamentals
- A high-level understanding of broadband access concepts
- Experience and familiarity with Junos OS
- Familiarity with the Junos CLI
- Introduction to the Junos Operating System course, or equivalent knowledge

Programme

- 1 Introduction to Subscriber Management
 - Explain the basic concepts of subscriber management
 - Characterize network concepts for broadband access
- DAY 1** • Analyze subscriber management operational flow
 - 4 Subscriber Management Interfaces
 - Describe physical interface characteristics
 - Configure static and dynamic subscriber interfaces
 - Configure an IP demux interface
- 3 PPP Tunneling with L2TP
 - Describe PPP using L2TP
 - Configure L2TP
- 5 Dynamic Profiles
 - List common variables used in subscriber management
- Lab 2: Configuring dynamic profiles
- 7 Layer 3 Wholesale Services
 - Describe wholesale operations
 - Explain Layer 3 wholesale services
- Lab 4: Configuring Layer 3 wholesale services
- 9 High Availability
 - Describe Virtual Router Redundancy Protocol
 - Describe M:N subscriber redundancy on BNG
- 11 Subscriber Class of Service
 - Describe the purpose and benefits of CoS
 - List and explain components of CoS
 - Implement dynamic Cos for subscribers
 - Verify, monitor, and troubleshoot subscriber CoS
- Lab 7: Configuring Subscriber Class of Service
- 13 Carrier-Grade NAT and Subscriber Secure Policy
 - Describe NAT services
 - Configure NAT services for subscribers
 - Describe Subscriber Secure Policy (lawful intercept)
- 15 Address Pool Manager
 - Explain APM benefits and fundamental concepts
 - Describe the functional components of APM
 - Discuss the APM environment
 - Describe the general operation of APM
- 2 Access Management
 - Discuss subscriber access management
 - Configure AAA services
 - Configure an extended DHCP local server
 - Configure an extended DHCP relay and proxy agent
- Lab 1: Configuring subscriber addressing
- 6 Dynamic PPPoE for Subscriber Access
 - Describe PPPoE in subscriber access networks
 - Explain the benefits and operation of dynamic PPPoE
 - Configure dynamic PPPoE
- DAY 2** Lab 3: Configuring PPPoE service name tables
- 8 Layer 2 Operations
 - Describe two common L2TP applications
 - Configure an MX Series router as an LAC and as an LNS
 - Verify the L2TP operation using show commands and logging
- Lab 5: L2TP
- 10 Pseudowire Headend Termination
 - Use pseudowires in subscriber management
 - Configure pseudowires
 - Use class of service with pseudowires
- DAY 3** Lab 6: Pseudowire Headend Termination
- 12 Dynamic Firewall Services
 - Describe the characteristics and functionality of firewall filters
 - Implement firewall filters for subscriber management
 - Monitor firewall filters and counters
- Lab 8: Configuring Dynamic Firewall Services
- 14 An Introduction to BNG CUPS
 - Describe the components of BNG CUPS
 - Explain disaggregation
 - Explain two common BNG CUPS use cases
- DAY 4**

Test and Certification

RELATED CERTIFICATION: JNCIP-SP, JNCIS-SP

Session Dates

Date	Location	Time Zone	Language	Type	Guaranteed	PRICE
17 Sep 2024	Virtual Training Class - TP	BST	English	Instructor Led Online		£3,400.00
10 Dec 2024	Virtual Training Class - TP	GMT	English	Instructor Led Online		£3,400.00

Additional Information

This training is also available as onsite training. Please contact us to find out more.