Juniper Session Smart SD-WAN (JSSS)

COURSE OVERVIEW

This four-day course is designed to teach network engineers and architects how to configure, manage, and troubleshoot Juniper Session Smart Routers. Juniper Session Smart SD-WAN will teach students how to configure and use a Session Smart Router and Session Smart Conductor. It starts with an introduction to the PCLI and GUI. After that, the students use the GUI to deploy and configure their Session Smart Routers. They will go from servers with just CentOS installed to a fully deployed network with multiple paths, three Session Smart Routers, and one Session Smart Conductor.

Students will then learn how to enable and configure advanced features on their Session Smart Routers. These are features that are not necessary for a Session Smart Routing deployment, but when activated, can be very powerful.

Students will then learn the tools they can use within their Session Smart Conductors and routers to monitor and troubleshoot issues. The students will learn useful commands and options in the GUI and the class will test the students' abilities to troubleshoot real-life Session Smart Routers issues.

COURSE LEVEL

Intermediate

AUDIENCE

Benefits individuals who want to implement Juniper Session Smart Routing

PREREQUISITES

- Basic TCP/IP skills
- Familiarity with Linux

RELEVANT JUNIPER PRODUCT

- Juniper Session Smart Router
- Juniper Session Smart Conductor

CONTACT YOUR REGIONAL EDUCATION SERVICES TEAM:

- Americas: training-amer@juniper.net
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OBJECTIVES

- Install a Session Smart Router and Session Smart Conductor.
- Access Session Smart Routers with both the PCLI and the GUI.
- Describe how traffic flows through a Session Smart Router.
- Use the PCLI and GUI to operate and maintain their Session Smart Routers.
- Route traffic to a data center using Session Smart Routers.
- Configure an HA pair of Session Smart Routers.
- Configure Session Smart Router to interoperate with BGP Peers.
- Describe how the Session Smart Router can perform Traffic Engineering.
- List the useful commands and tools to troubleshoot Session Smart Routers.
- Describe where to go to find more information on APIs.
- Describe where to go for further resources.

COURSE CONTENTS

DAY 1

1 Course Introduction

2 Introduction to Session Smart Routing

- Introduction to the Session Smart Routing
- Review of the Session Smart Routing Data Model

3 Introduction to the PCLI

- Navigating the Session Smart Router with the PCLI

Lab 1: Introduction to the PCLI

4 Introduction to the GUI

- Navigating the Session Smart Router with the GUI

Lab 2: Introduction to the GUI

5 Backups

- Types of Configuration (Candidate Versus Running)
- Validate and Commit
- Exporting and Importing Configurations

Lab 3: Backups

COURSE CONTENTS (contd.)

DAY 2

6 Conductor

- Introduction to the Conductor
- Install Conductor using the Session Smart Routing Installer
- Authority
- Services
- Tenants

Lab 4: Conductor

7 Data Center Router

- Deploy a Data Center Router using Zero Touch Provisioning (ZTP)
- Router
- Node
- Device Interface
- Network Interface

Lab 5: Data Center Router

8 Branch Router

- Configuration Templates
- Deploy a Branch Router using ZTP
- Peer
- Adjacency
- Neighborhood

Lab 6: Branch Router

9 Routing

- FIB, RIB, Service
- Service Routes

Lab 7: Routing

10 Security Policies

- Security Policies

Lab 8: Security Policies

DAY 3

11 Upgrades

- Upgrades

12 Multiple WAN

- Service Policies
- Service Route Redundancy and Vectors
- Configure and Apply Multiple Paths from Branch to Data Center

Lab 9: Multiple WAN Links

DAY 3 (contd.)

13 High Availability

- Conductor HA
- VRRP
- Dual Node
- Dual Router

Lab 10: High Availability

14 Traditional Routing

- Peering with a BGP Neighbor
- BGP over SVR
- Appendix: Route Filters and Policies

Lab 11: Traditional Routing

DAY 4

15 Troubleshooting in the GUI

- Alarms and Events
- API

Lab 12: Troubleshooting Using the GUI

16 Packet Captures

- Packet Capture, Session Capture

Lab 13: Packet Captures

17 Logs

- Service Architecture
- Conductor Logs, Router Logs
- Retrieving Logs
- Save Tech-Support-Info

Lab 14: Logs

18 Troubleshooting Peer Paths

- Review of Peers, Adjacencies, and Neighborhoods
- BFD, NAT

Lab 15: Troubleshooting Peer Paths

19 Troubleshooting Salt Connectivity

- Review of ZTP and Salt

Lab 16: Troubleshooting Salt Connectivity

A Appendix: Troubleshooting Applications

B Appendix: Network Address Translation

C Appendix: WAN Assurance

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