Fast Lane

Juniper Paragon Automation for the WAN (JPAW)

ID JPAW **Price** US $ 4,000.—(excl. VAT) **Duration** 4 days

Who should attend

This course benefits individuals who want to automate the management of service provider or large enterprise MPLS networks with Paragon Automation.

Prerequisites

The prerequities for this course are:

- Understanding of the OSI Model;
- Junos OS configuration experience—the Introduction to the Junos Operating System (IJOS) course or equivalent; and
- Advanced MPLS knowledge—the Junos MPLS Fundamentals (JMF) course or equivalent.

Course Objectives

After successfully completing this course, you should be able to:

- Describe various WAN domains
- Describe and configure Paragon Pathfinder for initial use
- Describe and configure Paragon Pathfinder topology discovery
- Describe and configure various Label Switched Path (LSP) types
- Describe primary, secondary, and standby LSPs
- Describe Point-to-Multipoint use cases
- NETCONF configuration and maintenance scheduling with Paragon Pathfinder
- Network analytics with Paragon Insights
- Describe and configure Paragon Automation Planner
- Model a network with Paragon Planner
- Simulate and optimize network demands with Paragon Planner

Course Content

DAY 1

1 Introduction

2 WAN Automation

- Describe WAN domains
- Describe Paragon Pathfinder capabilities
- Describe Paragon Planner capabilities

3 Paragon Pathfinder Architecture

- Explain the Path Computation Element Protocol
- Explain LSP Signaling and the CSPF Algorithm
- Describe Paragon Pathfinder Architecture
- Configure the Network

Lab 1: Initial Setup

4 Network Topology Discovery

- Describe Paragon Pathfinder network topology discovery
- Configure Paragon Pathfinder network topology discovery

Lab 2: Topology Discovery

DAY 2

5 Using Paragon Automation

- Examine the Paragon Automation interface
- Examine the Paragon Planner Desktop interface

Lab 3: Using Paragon Automation

6 Basic LSP Management

- Describe and configure various Label Switched Path (LSP) types
- Configure PCC-controlled LSPs
- Configure PCE-controlled LSPs
- Configure PCE-initiated LSPs
- Verify LSP status

Lab 4: Basic LSP Management

7 Advanced LSP Management

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- Describe and configure primary, secondary, and standby LSPs
- Describe and configure symmetric pairs of LSPs
- Describe and configure diversity groups
- Describe and configure MPLS LSP templates
- Describe and configure LSP calendaring
- Describe and configure inter-AS LSPs
- Describe and provision multiple LSPs
- Describe and configure LSP optimization

Lab 5: Advanced LSP management

DAY 3

8 Segment Routing

- Describe Segment Routing
- Configure Segment Routing
- Manage Segment Routed LSPs using
- Paragon Pathfinder

Lab 6: Segment Routing

9 P2MP LSPs

- Describe Point-to-Multipoint use cases
- P2MP management with Paragon Pathfinder
- P2MP monitoring with Paragon Pathfinder
- Describe Point to-Multipoint LSPs

10 Maintenance Scheduling and NETCONF LSP Provisioning

- Configure scheduled maintenance events
- Provision NETCONF LSPs

Lab 7: Maintenance Scheduling and NETCONF Provisioning

11 Paragon Insights

- Describe Paragon Insights capabilities
- Enable Paragon Insights monitoring
- Integrate Paragon Insights and Paragon Pathfinder

Lab 8: Paragon Insights

DAY 4

12 Troubleshooting Paragon Insights

- Identify Paragon Automation services and processes

- Log analysis with Paragon Insights
- Debugging with Paragon Insights

Lab 9: Troubleshooting Paragon Insights

13 Paragon Planner

- Explain the features and capabilities of Paragon Planner
- Launch Paragon Planner Desktop and explore the interface

Lab 10: Paragon Planner

14 Network Modeling

- Load Paragon Planner network models
- Explain network model data storage
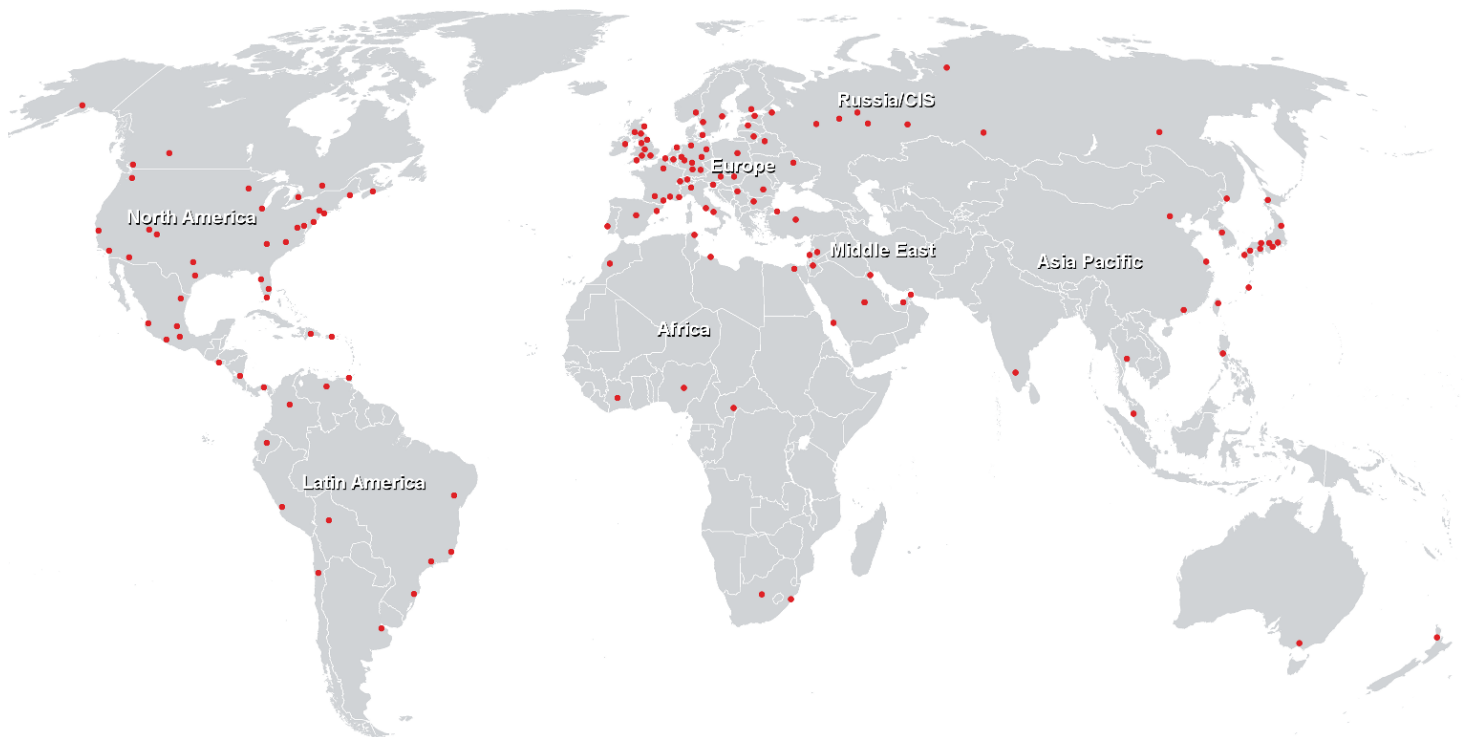- Modify network models

Lab 11: Network Modeling

15 Network Demands and Failure Simulation

- Improve network traffic demand forwarding
- Simulate network failure

Lab 12: Network Demands and Failure Simulation

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Training Centres worldwide

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