

# MPLS and Segment Routing Automation Using NorthStar (MSRN)

ID MSRN Price US \$ 4,000.—(excl. VAT) Duration 4 days

## Who should attend

This course benefits individuals responsible for managing MPLS networks that want to add automation using the NorthStar Controller and NorthStar Planner, including individuals in professional services, sales and support organizations, and the end users.

## Prerequisites

The following are the prerequisites for this course:

- Understanding of the OSI model
- Junos OS configuration experience—the [Introduction to the Junos Operating System \(IJOS\)](#) course or equivalent
- Advanced MPLS knowledge—the [Junos MPLS Fundamentals \(JMF\)](#) course or equivalent

## Course Objectives

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

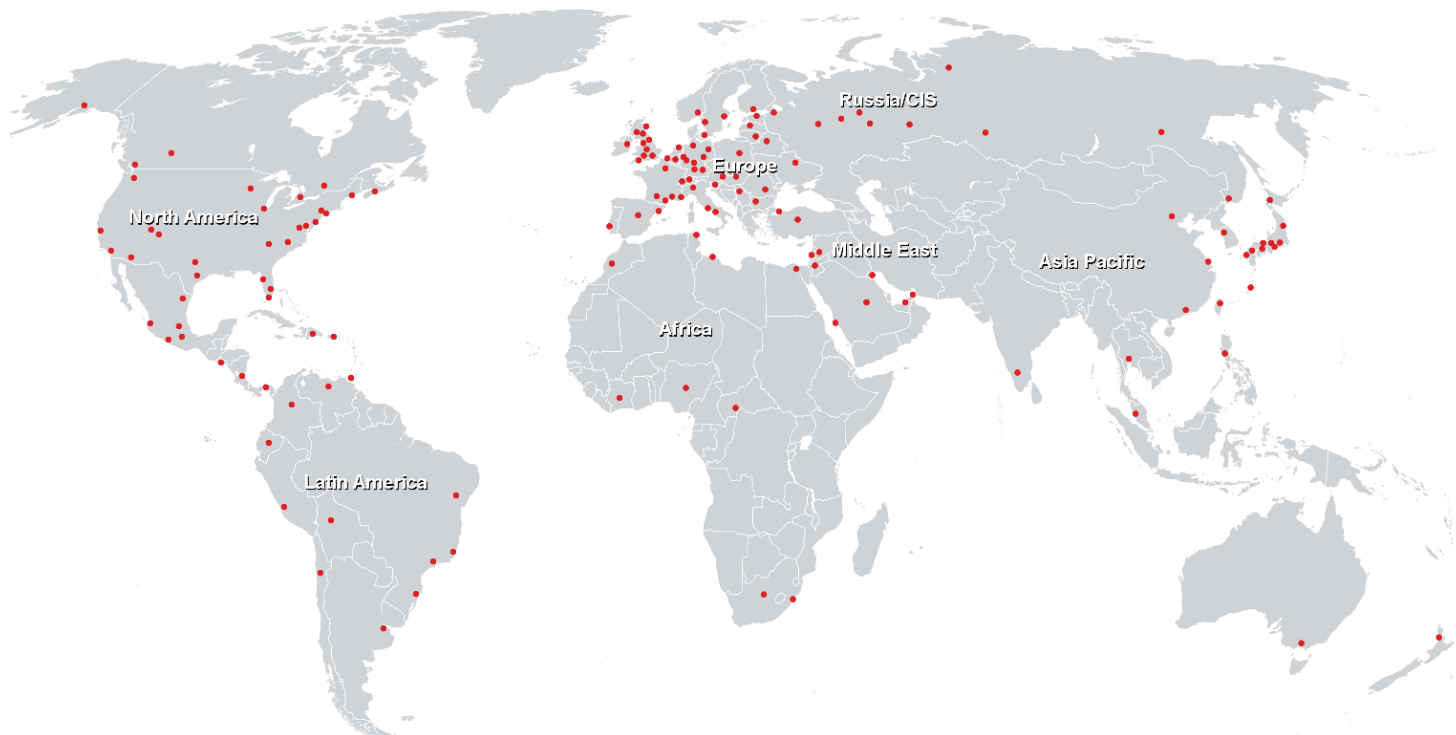
- Describe the various WAN domains.
- Describe the use cases for NorthStar.
- Describe the use cases for NorthStar Planner.
- Describe the usage of PCEP.
- Describe RSVP signaling using the CSPF algorithm.
- Describe the NorthStar VMs and their processes.
- Describe the post installation setup process.
- Describe the behavior of topology discovery.
- Describe the configuration of IGP topology discovery.
- Describe the configuration of BGP-LS topology discovery.
- Describe how to access the NorthStar Controller Operator and Planner user interfaces.
- Describe the basic features of the NorthStar Controller Operator user interface.
- Describe the various LSP types.
- Configure PCC controlled LSPs.
- Configure PCE delegated LSPs.
- Configure PCE initiated LSPs.
- Monitor LSPs from the NorthStar Operator user interface.
- Describe primary, secondary, and standby LSPs.
- Describe symmetric pairs of LSPs.

- Describe diversity groups.
- Describe using Junos MPLS LSP templates.
- Describe LSP calendaring.
- Describe Inter-AS LSPs.
- Describe Egress Peer Engineering.
- Describe how to provision multiple LSPs.
- Describe LSP optimization.
- Configure Segment Routing.
- Provision Segment Routed LSPs.
- Manage NorthStar using the REST API.
- Troubleshoot NorthStar Controller.
- Create P2MP LSPs.
- Explain the features, capabilities, and benefits of NorthStar Planner and how they work to optimize WAN design.
- Access NorthStar Planner and navigate and customize the NorthStar Planner administrative interface.
- Access NorthStar Planner Web UI.
- Explain different methods of creating a network model.
- Manage different files that make up a network model and understand how these files are organized.
- Modify a network model by performing tasks such as adding links, nodes, and sites and save these changes to a modeled network.
- Optimize network demand paths, design diverse paths, and perform what-if scenarios to see how demands are routed.
- Simulate link and node failures and view the effects of these failures on demand routing across the WAN.
- Analyze and manage network information using the Report Manager interface.
- Perform hardware inventory using the NorthStar Planner interface.

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## Training Centres worldwide



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