

Implementing Converged SDN Transport Solutions

Duration: 4 Days **Course Code: SPSDNTXP** **Version: 1.0** **Delivery Method: Virtual Classroom**

Overview:

The Implementing Converged SDN Transport Solutions (SPSDNTXP) course introduces you to Software-Defined Networking (SDN)-ready architecture. This architecture evolves traditional Metro network design into an SDN-enabled programmable network capable of delivering all services (residential, business, 5G mobile backhauling, video, and IoT) on the premise of simplicity, full programmability, and cloud integration with guaranteed service level agreements (SLAs).

You will examine the evolution of service provider design principles such as Unified Multiprotocol Label Switching, Evolved Programmable Networks, and the Cisco® Compass Metro Fabric. Additionally, you'll explore and configure individual components of the design including segment routing and its supporting features.

This course will help you:

- Describe the Converged SDN Transport solution
- Describe the basic implementation of SDN component features
- Establish a foundation to take a deeper dive into SDN solutions

Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

Target Audience:

Anyone deploying a converged SDN Transport solution

Objectives:

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

- Introduce and examine the evolution of service provider design principles
- Introduce and review the basic building blocks of segment routing and its place within the service provider infrastructure
- Implement various technologies within segment routing to provide additional availability or to meet the Service Level Agreements (SLAs)
- Identify and deploy an SDN controller to support a multidomain segment routing for traffic engineering
- (SR-TE) network
- Describe different VPNs and services
- Explain how to configure and verify Ethernet VPN (EVPN) Native and EVPN Virtual Private Wire Service (VPWS)
- Describe how to configure and verify the Layer 3 VPN
- Explain network operation simplification and automation foundation
- Describe how to automate service provider network configurations with Cisco Network Services Orchestrator (NSO)
- Describe how to automate the service provider WAN with Cisco WAN Automation Engine (WAE)
- Explore different converged SDN transport use cases

Prerequisites:

Attendees should meet the following prerequisites:

- Knowledge of general networking concepts
- Experience working with CLI-based network devices

Testing and Certification

Recommended as preparation for the following exams:

- No exams are currently aligned to this course

Content:

Converged SDN Transport Fundamentals

VPN and Services Overview

Network Orchestration Using NSO

Introducing Segment Routing

EVPN Layer 2 Basics

Network Automation Using Cisco WAE

Segment Routing Topology-Independent
Loop-Free Alternative (TI-LFA) and Traffic
Engineering (TE)

Layer 3 VPNs

Labs

Multidomain SR-TE

Operation Simplification and Automation
Foundation

- Configure and Verify Segment Routing
- Configure and Verify SR TI-LFA
- Configure and Verify SR-TE
- Configure and Verify Multidomain SR-TE
- Configure and Verify Basic EVPN
- Configure and Verify Layer 3 VPN
- Cisco NSO Overview
- Cisco WAE Overview

Further Information:

For More information, or to book your course, please call us on 00 966 92000 9278

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