



# SEGRTE201 - IMPLEMENTING SEGMENT ROUTING ON CISCO IOS XR

Course Code: 101136

This course is eligible for 32 Continuing Education Credits (ILT & ELT Modality).

# SEGRTE201 - IMPLEMENTING SEGMENT ROUTING ON CISCO IOS XR

Course Code: 101136

VIRTUAL CLASSROOM LIVE

\$5,200 CAD

4 Day

## Virtual Classroom Live Outline

### Introduction to Segment Routing (SR)

- Examining Unified Fabric Routing
- Exploring Segment Routing Concepts
- Examining Segment Types
- Examining the Segment Routing Global Block (SRGB)

### IGP Segment Routing Implementation and Verification

- Examining the IGP Control Plane
- Examining SRGB and IGP Interactions
- Examining Prefix and Adjacency Segment Identifiers
- Intermediate System to Intermediate System Multilevel and Open Shortest Path First (OSPF) Multi-Area
- Configuring and Verifying IS-IS SR Operation
- Configuring and Verifying OSPF SR Operation

### Segment Routing and LDP Interworking

- SR and LDP Interworking Data Plane
- Mapping Server Function and Configuration
- Interworking Deployment Models

### Topology Independent -Loop Free Alternate

- Examining Classic LFA
- Examining TI-LFA Fundamentals
- Implementing and Verifying TI-LFA for SR Traffic
- Implementing and Verifying TI-LFA for LDP Traffic
- TI-LFA and SR/LDP Interworking

### Segment Routing Policies - Traffic Engineering (SR-TE)

- Exploring SR Policies
- Introducing the Anycast and Binding SIDs
- Enabling and Verifying SR Policies
- Instantiating SR Policies
- Instantiating SR Policies Using BGP Dynamic

### **Multidomain SR Policies**

- Configuring and Verifying a Path Computation Element (PCE)
- Configuring and Verifying BGP Link State (BGP-LS)
- Configuring Multidomain SR Policies with a PCE
- Configuring Multidomain SR Policies with On-Demand Next Hop (ODN)
- Segment Routing - Based Services
- Examining the BGP Prefix - SID Operation
- Configuring and Verifying the BGP Prefix SID
- Examining Egress Peer Engineering
- Examining the BGP Prefix-SID Operation
- SR Flexible Algorithm and Performance Measurement (PM) Delay
- SR-Enabled VPNs

### Virtual Classroom Live Labs

Lab 1: Configuring and Verifying IGP Segment Routing

Lab 2: Migrating from LDP to Segment Routing

Lab 3: Configuring and Verifying TI-LFA Fast Reroute

Lab 4: Configuring and Verifying SR Policies

Lab 5: Configuring and Verifying Multidomain SR-TE

Lab 6: Configuring and Verifying BGP Segment Routing

# SEGRTE201 - IMPLEMENTING SEGMENT ROUTING ON CISCO IOS XR

Course Code: 101136

ON-DEMAND

\$975 CAD

## On-Demand Outline

### **Introduction to Segment Routing (SR)**

- Examining Unified Fabric Routing
- Exploring Segment Routing Concepts
- Examining Segment Types
- Examining the Segment Routing Global Block (SRGB)

### **IGP Segment Routing Implementation and Verification**

- Examining the IGP Control Plane
- Examining SRGB and IGP Interactions
- Examining Prefix and Adjacency Segment Identifiers
- Intermediate System to Intermediate System Multilevel and Open Shortest Path First (OSPF) Multi-Area
- Configuring and Verifying IS-IS SR Operation
- Configuring and Verifying OSPF SR Operation

### **Segment Routing and LDP Interworking**

- SR and LDP Interworking Data Plane
- Mapping Server Function and Configuration
- Interworking Deployment Models

### **Topology Independent -Loop Free Alternate**

- Examining Classic LFA
- Examining TI-LFA Fundamentals
- Implementing and Verifying TI-LFA for SR Traffic
- Implementing and Verifying TI-LFA for LDP Traffic
- TI-LFA and SR/LDP Interworking

### **Segment Routing Policies - Traffic Engineering (SR-TE)**

- Exploring SR Policies
- Introducing the Anycast and Binding SIDs
- Enabling and Verifying SR Policies
- Instantiating SR Policies
- Instantiating SR Policies Using BGP Dynamic

### **Multidomain SR Policies**

- Configuring and Verifying a Path Computation Element (PCE)
- Configuring and Verifying BGP Link State (BGP-LS)
- Configuring Multidomain SR Policies with a PCE
- Configuring Multidomain SR Policies with On-Demand Next Hop (ODN)
- Segment Routing - Based Services
- Examining the BGP Prefix - SID Operation
- Configuring and Verifying the BGP Prefix SID
- Examining Egress Peer Engineering
- Examining the BGP Prefix-SID Operation
- SR Flexible Algorithm and Performance Measurement (PM) Delay
- SR-Enabled VPNs

### **On-Demand Labs**

Lab 1: Configuring and Verifying IGP Segment Routing

Lab 2: Migrating from LDP to Segment Routing

Lab 3: Configuring and Verifying TI-LFA Fast Reroute

Lab 4: Configuring and Verifying SR Policies

Lab 5: Configuring and Verifying Multidomain SR-TE

Lab 6: Configuring and Verifying BGP Segment Routing

Visit us at [www.globalknowledge.com](http://www.globalknowledge.com) or call us at 1-866-716-6688.

Date created: 5/9/2025 2:28:44 AM

Copyright © 2025 Global Knowledge Training LLC. All Rights Reserved.