# Implementing and Operating Cisco Service Provider Network Core Technologies (SPCOR) 1.2

## Description

The **Implementing and Operating Cisco Service Provider Network Core Technologies (SPCOR)** training expands your knowledge and skills of service provider core networks. You will gain the theoretical and practical knowledge needed to implement and operate service provider networks using technologies such as core architecture, services, networking, automation, quality of service (QoS), security, and network assurance.

This training prepares you for the 350-501 SPCOR v1.0 exam. If passed, you earn the Cisco Certified Specialist – Service Provider Core certification and satisfy the core exam requirement for the Cisco Certified Network Professional (CCNP) Service Provider and Cisco Certified Internetwork Expert (CCIE) Service Provider certifications.

## Duration: 40 HRS

## Prerequisite

here are no prerequisites for this training. However, the knowledge and skills you are recommended to have before attending this training are:

- Intermediate knowledge of Cisco IOS or IOS XE

- Familiarity with Cisco IOS or IOS XE and Cisco IOS XR software configuration

- Knowledge of IPv4 and IPv6 transmission control protocol (TCP)/IP networking

- Intermediate knowledge of IP routing protocols

- Understanding of MPLS technologies

- Familiarity with VPN technologies

These skills can be found in the following Cisco Learning Offerings:

- Implementing and Administering Cisco Solutions (CCNA®)

- Understanding Cisco Service Provided Network Foundations (SPFNDU)

## Outline

1. Describing Service Provider Network Architectures

2. Describing Cisco IOS Software Architectures

3. Implementing OSPF for Cisco IOS XR

4. Implementing IS-IS for Cisco IOS XR

5. Implementing BGP in Service Provider Network

6. Implementing Route Maps and RPL

7. Transitioning to IPv6 for Cisco IOS XR and IOS XE

8. Implementing High Availability in Networking

9. Implementing MPLS for Cisco IOS XR

10. Implementing Cisco MPLS Traffic Engineering

11. Describing Segment Routing

12. Describing VPN Services

13. Configuring L2VPN Services

14. Configuring L3VPN Services

15. Implementing Multicast for Cisco IOS XR

16. Describing QoS Architecture

17. Implementing QoS for Cisco IOS XR

18. Implementing Control Plane Security

19. Implementing Management Plane Security

20. Implementing Data Plane Security

21. Introducing Network Programmability

22. Implementing Automation and Assurance

23. Introducing Cisco NSO

24. Implementing Virtualization in Service Provider Environment

## Who Should Attend

- Network Administrators

- Network Engineers

- Network Managers

- System Engineers

- Project Managers

- Network Designers