

Leveraging Cisco IOS XR VPN Services (XRVPNS)

Duration: 3 Days

Prerequisites:

The knowledge and skills you are expected to have before attending this course are:

- Familiarity with service provider network operation
- Familiarity with Cisco IOS XR software configuration and operation
- Ability to implement and troubleshoot routing protocol including OSPF, IS-IS, and Border Gateway Protocol (BGP) in a service provider network

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

- Understanding Cisco Service Provider Network Foundations (SPFNDU v 1.0)
- Cisco IOS XR Software Essentials (IOSXRE v 1.0)

Course Description:

The Leveraging Cisco IOS XR VPN Services (XRVPNS) training teaches you how to implement and troubleshoot Layer 2 and Layer 3 Virtual Private Network services in a service provider network operating on Cisco IOS XR software. Cisco IOS XR is the foundational operating system of most service provider networks and operates Cisco's service provider portfolio of network devices. You will learn how to implement a label switched network infrastructure for the enablement of VPN services using Multiprotocol Label Switching (MPLS) or Segment Routing (SR). You will also learn how to implement and troubleshoot both IPv4 and IPv6 Layer 3 VPN services and Multicast VPN services using IOS XR. In addition, you will learn how to implement Ethernet VPN (EVPN) services including EVPN Integrated Routing and Bridging (EVPN IRB) and EVPN-SR data center fabric. Finally, you will learn how to implement EVPN advanced features.

Target Audience:

- Network Engineers
- Systems Engineers
- Network Administrators
- Network Managers
- Network Designers

Course Outlines:

- Cisco IOS XR Software MPLS Operation and Implementation
- > Segment Routing Fundamentals
- Segment Routing IPv6
- Layer 3 MPLS VPN Implementation with Cisco IOS XR Software
- Layer 3 MPLS VPN Troubleshooting
- > Layer 3 Multicast MPLS VPN Implementation
- > Layer 3 IPv6 MPLS VPNs Implementation
- Laver 3 IPv6 MPLS VPN Troubleshooting
- ➤ Laver 2 VPNs and Ethernet Services Fundamentals
- Cisco IOS XR Software EVPN Operation and Implementation
- Cisco IOS XR Software EVPN IRB
- EVPN-SR Data Center Fabric