

## XRVPNS

# Leveraging Cisco IOS XR VPN Services

24 horas

Profissional

Cisco

Cisco Continuing Education Credits

**24 CE Credits**

## INTRODUÇÃO

The Leveraging Cisco IOS XR VPN Services (XRVPNS) training teaches you how to implement and troubleshoot Layer 2 and Layer 3 VPN services in a service provider network operating on Cisco IOS XR software, including MPLS, Segment Routing, EVPN, and advanced EVPN features.

## OBJETIVO DO CURSO

Implement and configure MPLS in service provider networks

Describe segment routing types, SRGB, and configure IS-IS/OSPF segment routing

Implement and configure Segment Routing IPv6

Describe Layer 3 MPLS VPN components in Cisco IOS XR

Identify routing and LDP information for L3 MPLS VPN troubleshooting

Discuss Multicast LDP implementation for Layer 3 multicast MPLS VPN

Implement MPLS VPN solutions for IPv6 environments

Describe common PE-PE and PE-CE connectivity issues in IPv6 MPLS VPN

Implement Layer 2 VPN operations in service provider environment

Explain EVPN architecture and implement/troubleshoot EVPN solutions

Explain EVPN IRB advantages and implementation

Demonstrate EVPN-SR data center fabric solutions

Explain advanced EVPN features

Network Engineers, Systems Engineers, Network Administrators, Network Managers, Network Designers

## PRÉ-REQUISITOS

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Recommended: familiarity with service provider network operation, Cisco IOS XR software configuration, and routing protocols (OSPF, IS-IS, BGP).

## CONTEÚDO PROGRAMÁTICO

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### Course Outline

Cisco IOS XR Software MPLS Operation and Implementation

Segment Routing Fundamentals

Segment Routing IPv6

Layer 3 MPLS VPN Implementation with Cisco IOS XR

Layer 3 MPLS VPN Troubleshooting

Layer 3 Multicast MPLS VPN Implementation

Layer 3 IPv6 MPLS VPNs Implementation

Layer 3 IPv6 MPLS VPN Troubleshooting

Layer 2 VPNs and Ethernet Services Fundamentals

Cisco IOS XR EVPN Operation and Implementation

Cisco IOS XR EVPN IRB

EVPN-SR Data Center Fabric

EVPN Advanced Features

### Lab Outline

Configure and Verify MPLS

Configure and Verify Segment Routing

Configure and Verify SRv6

Configure and Verify Layer 3 VPN

Implement 6VPE

Configure and Verify EVPN VPWS