Learning@Cisco

Cisco IOS XR Ethernet VPN Implementation and Verification (IOSXR303) v1.0

Overview
The Cisco IOS XR Ethernet VPN Implementation and Verification (IOSXR303) version 1.0 Cisco® Training on Demand course provides you with the skills necessary to implement and troubleshoot several Ethernet Virtual Private Network (EVPN) technologies, including EVPN native, EVPN Virtual Private Wire Service (VPWS), Provider Backbone Bridge (PBB) EVPN, EVPN Integrated Routing and Bridging (IRB), and EVPN Virtual Extensible Lan (VXLAN), on Cisco IOS® XR devices.

You will review and examine next-generation solutions for Layer 2 VPN (L2VPN), EVPN terminology and concepts, and traffic forwarding. The course will also show you how to implement and troubleshoot the various EVPN technologies and investigate EVPN Multiprotocol Label Switching (MPLS) seamless integration with Virtual Private LAN Service (VPLS), EVPN out of service, virtual Ethernet segment, and EVPN route policy.

Duration
The IOSXR303 v1.0 Training on Demand course consists of three modules totaling more than nine hours of video instruction along with nine hands-on lab exercises.

Target audience
The primary audience for this course is implementation and design engineers and network planning engineers.

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

- Describe the fundamentals of EVPN
- Describe and configure various EVPN technologies, including EVPN native, EVPN VPWS, PBB EVPN, EVPN IRB, and EVPN VXLAN
- List and describe the advanced features of EVPN
Course prerequisites
The knowledge and skills recommended before attending this course are:

- Experience working with Cisco IOS XR Software-based platforms
- Basic knowledge of interior gateway protocols (Intermediate System to Intermediate System [IS-IS] and Open Shortest Path First [OSPF])
- Understanding of Border Gateway Protocol (BGP) routing
- Understanding of MPLS

Course outline
- Module 1: EVPN Fundamentals
- Module 2: EVPN Configuration and Verification
- Module 3: EVPN Advanced Features

Labs outline
This course contains nine hands-on lab exercises:

- Lab 1: Configuring EVPN Native with Software MAC Learning
- Lab 2: Configuring EVPN VPWS
- Lab 3: Configuring EVPN PBB-EVPN
- Lab 4: Configuring EVPN IRB
- Lab 5: Configuring EVPN and SR Fabric
- Lab 6: Configuring EVPN VXLAN Layer 3 DCI Gateway
- Lab 7: Configuring EVPN VXLAN Layer 2 Data Center Interconnect Gateway
- Lab 8: Configuring EVPN MPLS Seamless Integration with VPLS
- Lab 9: Configuring an EVPN Routing Policy