Learning@Cisco

Cisco IOS XR Ethernet VPN Implementation and Verification

The Cisco IOS XR Ethernet VPN Implementation and Verification[1] (IOSXR303) course is an instructor-led, lab-based, hands-on course offered by Learning@Cisco. The overall course goal is for you to be able to implement and troubleshoot several Ethernet VPN (EVPN) technologies, including EVPN native, EVPN VPWS, PBB EVPN, EVPN IRB, and EVPN VXLAN, on Cisco IOS® XR devices.

This course will examine next-generation solutions for Layer 2 VPN (L2VPN), EVPN terminology and concepts, and traffic forwarding. This course will also show students 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

Instructor-Led Training (ILT): 3 days.

Virtual Instructor-Led Training (VILT): 4 days.

Target audience

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

[1] Course content is dynamic and subject to change without notice.

Course objectives

Upon completion of this course, you should be able to:

- Describe the fundamentals of EVPN
- Describe and configure various EVPN technologies, including EVPN native, EVPN Virtual Private Wire Service (VPWS), Provider Backbone Bridging (PBB) EVPN, EVPN with integrated routing and bridging (IRB), and EVPN Virtual Extensible LAN (VXLAN)
- List and describe the advanced features of EVPN

Course prerequisites

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

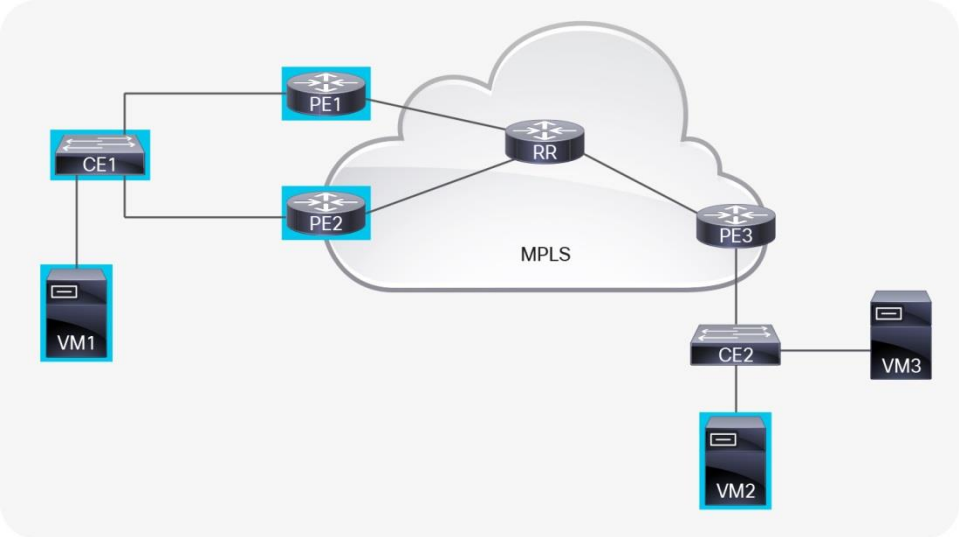
Course outline

- Module 1: EVPN Fundamentals
  - Examining Next-Generation Solutions for L2VPN
  - Examining EVPN Terminology and Concepts
  - Examining EVPN Traffic Forwarding
- Module 2: EVPN Configuration and Verification
  - Implementing EVPN Native
  - Implementing EVPN VPWS
  - Implementing PBB EVPN
  - Implementing EVPN IRB
  - Implementing EVPN-SR DC Fabric
  - Implementing EVPN VXLAN
- Module 3: EVPN Advanced Features
  - Examining EVPN Advanced Features

Lab outline

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

Lab topology



Registration email

For more information about schedules and registration for this course, contact aeskt_registration@cisco.com.

Cisco Capital financing helps you achieve your objectives

Cisco Capital® financing can help you acquire the technology you need to achieve your objectives and stay competitive.

We can help you reduce Capital Expenditures (CapEx), accelerate your growth, and optimize your investment dollars and ROI. Cisco Capital financing gives you flexibility in acquiring hardware, software, services, and complementary third-party equipment. And there's just one predictable payment. Cisco Capital financing is available in more than 100 countries. Learn more.

Websites for more information

For more information, visit the following websites:

- Cisco® Learning Services for Cisco products and technologies: https://www.cisco.com/go/cls
- Security training: https://www.cisco.com/c/en/us/training-events/resources/learning-services/technology/security.html
- Data center training: https://www.cisco.com/c/en/us/training-events/resources/learning-services/technology/data-center.html
- Network management training: https://www.cisco.com/c/en/us/training-events/resources/learning-services/technology/network-management.html
- Optical networking training: https://www.cisco.com/c/en/us/training-events/resources/learning-services/technology/optical.html
- Service provider mobility training: https://www.cisco.com/c/en/us/training-events/resources/learning-services/technology/mobile.html

- Routing training for service providers: https://www.cisco.com/c/en/us/training-events/resources/learning-services/technology/service-provider-routing.html
- Broadband video training for service providers: https://www.cisco.com/c/en/us/training-events/resources/learning-services/technology/service-provider-video.html

Cisco Capital

Financing to Help You Achieve Your Objectives

Cisco Capital can help you acquire the technology you need to achieve your objectives and stay competitive. We can help you reduce CapEx. Accelerate your growth. Optimize your investment dollars and ROI. Cisco Capital financing gives you flexibility in acquiring hardware, software, services, and complementary third-party equipment. And there's just one predictable payment. Cisco Capital is available in more than 100 countries. Learn more.

Americas Headquarters
Cisco Systems, Inc.
San Jose, CA

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
Singapore

Europe Headquarters
Cisco Systems International BV Amsterdam,
The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at https://www.cisco.com/go/offices.

Printed in USA **Course version: IOSXR303_1.0** C78-740063-00 12/17