

Advanced Services' Cisco IOS XR MPLS and Tunnel Technologies for IPv4 (XMPLST4) Version 4.0.1



This course provides technical training to Cisco service provider customers so that they can successfully deploy Multiprotocol Label Switching (MPLS) and other tunneling technologies on routers running Cisco IOS® XR Software Release 4.0.1. We examine fundamental MPLS and Label Distribution Protocol (LDP) operation and configuration as well as Layer 2 VPNs (L2VPNs), L3VPNs, MPLS Traffic Engineering (MPLS-TE), Multiprotocol BGP (MP-BGP), Resource Reservation Protocol (RSVP), and Any Transport over MPLS (AToM).

Duration

Five days.

Target Audience

This course is for technical professionals who design, implement, and operate MPLS and other tunnel technologies in a service provider network employing routers using Cisco IOS XR Software.

The following are considered the primary audience for this course:

- Network and senior engineers
- Network operations center (NOC) engineers
- Support engineers

Course Objectives

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

- Describe various aspects of implementation of MPLS, LDP, L3VPN, L2VPN, MPLS-TE, and MPLS operations, administration, and maintenance (OAM) in Cisco IOS XR Software Release 4.0.1
- Configure and verify MPLS LDP
- Configure and verify L3VPN, L2VPN, and AToM
- Configure and verify MPLS-TE
- Configure and employ MPLS OAM

- Implement LDP, L3VPN, L2VPN, and MPLS-TE

Course Prerequisites

Following are the prerequisites for this course.

- Students should have knowledge of the Cisco IOS XR Software configuration syntax to the extent covered in the Cisco® CRS-1 Essentials, Cisco IOS XR Fundamentals for Network Operations, or Cisco ASR 9000 Essentials course.
- Students attending this class should be able to establish, without assistance, a configuration for Open Shortest Path First Version 2 (OSPFv2), Intermediate System-to-Intermediate System (IS-IS), and Border Gateway Protocol (BGP) with Routing Policy Language (RPL) policies as accomplished in the Cisco IOS XR IPv4 Routing course labs.
- Students must have a basic understanding of MPLS configuration and operation as covered in the Cisco CRS-1 Essentials, Cisco IOS XR Fundamentals for Network Operations, or Cisco ASR 9000 Essentials course.

To locate Cisco courses that cover the listed prerequisites, go to the Cisco Training and Events webpage at www.cisco.com/web/learning/index.html.

Course Outline

The course outline is as follows:

- Module 1: MPLS Technology Introduction
- Module 2: MPLS OAM
- Module 3: MPLS LDP
- Module 4: MPLS L3VPN
- Module 5: MPLS Inter-AS L3VPN
- Module 6: MPLS-TE
- Module 7: MPLS L2VPN

Lab Outline

The lab outline is as follows:

- Lab 1: Setup and Familiarization with the Lab Network
- Lab 2: Implementing MPLS LDP
- Lab 3: Implementing MPLS L3VPNs
- Lab 4: Implementing Inter-AS L3VPNs
- Lab 5: Implementing MPLS-TE
- Lab 6: Implementing MPLS L2VPNs

Registration Information

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

For More Information

For more information about Advanced Services Education course offerings, including custom training options, as well as Advanced Services Curriculum Planning Services and the Advanced Services Technical Knowledge Library (TKL), refer to the Advanced Services Education website at www.cisco.com/go/ase.



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 www.cisco.com/go/offices.

CCDE, CCENT, CCSI, Cisco Eos, Cisco HealthPresence, the Cisco logo, Cisco Lumin, Cisco Nexus, Cisco Nurse Connect, Cisco Stackpower, Cisco StadiumVision, Cisco TelePresence, Cisco WebEx, DCE, and Welcome to the Human Network are trademarks; Changing the Way We Work, Live, Play, and Learn and Cisco Store are service marks; and Access Registrar, Aironet, AsyncOS, Bringing the Meeting To You, Catalyst, CCDA, CCDP, CCIE, CCIIP, CCNA, CCNP, CCSP, CCVP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Collaboration Without Limitation, EtherFast, EtherSwitch, Event Center, Fast Step, Follow Me Browsing, FormShare, GigaDrive, HomeLink, Internet Quotient, IOS, iPhone, iQuick Study, IronPort, the IronPort logo, LightStream, Linksys, MediaTone, MeetingPlace, MeetingPlace Chime Sound, MGX, Networkers, Networking Academy, Network Registrar, PCNow, PIX, PowerPanels, ProConnect, ScriptShare, SenderBase, SMARTnet, Spectrum Expert, StackWise, The Fastest Way to Increase Your Internet Quotient, TransPath, WebEx, and the WebEx logo are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0903R)