

XIPV4R

Cisco IOS XR IPv4 Routing



This hands-on course provides an advanced look at popular IPv4 routing protocols supported in Cisco® IOS® XR Software. The XIPV4R course investigates the intricacies of Interior Gateway Protocol (IGP) operation through Open Shortest Path First (OSPF) and Intermediate System-to-Intermediate System (IS-IS) Protocol labs that engage the student in a detailed examination of the link-state database and the effects of virtually all protocol options. The complexities of large-scale routing using the Border Gateway Protocol (BGP) are then explored, with the focus placed on scaling networks using route reflection and confederations. In addition, numerous BGP options, such as multihop, multipath, and authentication, are discussed and configured in a lab setting.

Course Contents

The course outline is as follows:

- IPv4 Routing Architecture and Infrastructure
- Routing Policy Language
- IS-IS Routing in the Core
- OSPF Routing in the Core
- BGP Routing Through the Core

The lab outline is as follows:

- Lab 1: Examining Cisco IOS XR Software Routing Infrastructure Boot a static routed configuration and examine the routing infrastructure environment.
- Lab 2: Routing Policy Language Design and configure a route policy to filter routes.
- Lab 3: Configuring IS-IS Routing Configure a core of routers as an IS-IS domain.
- Lab 4: Configuring OSPF Routing Configure another core of routers as a multiple area OSPF domain.
- Lab 5: Configuring BGP Routing Configure each core as a separate autonomous system with one as an internal BGP route reflector environment and the other as a BGP confederation.

Target Group

This course is for technical professionals who design, implement, and operate IPv4 routing protocols in a service provider network consisting of routers running Cisco IOS XR Software. The following are considered the primary audience for this course:

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

Knowledge Prerequisites

Students should have knowledge of the Cisco IOS XR Software configuration syntax to the extent covered in the Cisco CRS-1 Essentials or Cisco XR12000 Series Essentials course.

Students attending this class should be able to establish, without assistance, a basic configuration for OSPF, IS-IS, and BGP as accomplished in the Cisco CRS-1 Essentials or Cisco XR12000 Series Essentials course labs.

The courses CRS-1 - Cisco CRS-1 Essentials or XR12K - Cisco XR 12000 Series Essentials are a suitable preparation.



Reservation and Registration

We will be glad to make a free and non-binding course reservation for you for the duration of two weeks. On www.expertech-training.com under *Registration*, you can conveniently make course reservations, registrations, and hotel reservations. Alternatively, call us under +49 6074 4868-0.

For closed groups of participants, we can modify the course contents according to your requirements. Do not hesitate to contact us!



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XIPV



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