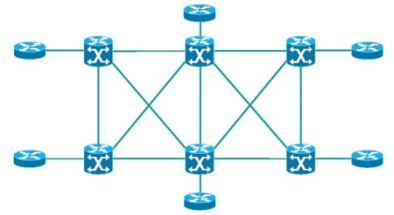


## Cisco® XR 12000 Series Essentials (XR12K)

### Length: 5-day Workshop

The course introduces you to Cisco® XR 12000 Series Routers. The platform options, features, and functionality are detailed. The modules are both theoretical and practical in scope. Although some of the modules focus on the technology and features of the platform, most of the modules deal specifically with the tasks associated with configuring and deploying the Cisco® XR 12000 Series Routers. Hands-on lab exercises allow you to practice and use the knowledge and skills gained during this course to perform measurable tasks.



### You will learn to:

- List and describe the major features and benefits of a Cisco® XR 12000 Series Router
- Implement a Cisco IOS® Software to Cisco IOS® XR Software upgrade
- List and describe the major features and benefits of the Cisco IOS® XR Software operating system
- List and describe the major features and benefits of a Cisco® secure domain router (SDR)
- Implement and configure a Cisco® secure domain router
- Configure the Cisco® XR 12000, back out of configuration changes, and restore older versions of a configuration
- Install the Cisco IOS® XR Software operating system, package information envelopes (PIEs), and software maintenance updates (SMUs)
- Configure the new Cisco IOS® XR Software security features in both owner SDR and nonowner SDRs
- Configure routing protocols in a complex multi-AS environment
- Enable multicast routing on Cisco® XR 12000 Series Routers
- Configure Multiprotocol Label Switching-Traffic Engineering (MPLS-TE) tunnels on a Cisco® XR 12000 Series Router
- Configure MPLS Layer 3 VPNs on a Cisco® XR 12000 Series Router
- Convert traditional route map configurations using the new Cisco IOS® XR Software Routing Protocol Language (RPL)
- Understand the differences between Cisco IOS® Software and Cisco IOS® XR Software configurations on the Cisco® XR 12000 Series Router
- Understand data flow through the Cisco® XR 12000 Series Router

### Recommended for:

This course is for technical professionals who need to know how to implement the Cisco® XR 12000 in their network environment, including the following:

- Support staff
- Installation and implementation personnel
- Network operations center (NOC) personnel
- Network engineers

### Prerequisites:

Because this is a hands-on course requiring students to efficiently configure and verify network functionality, students are expected to possess the following prerequisite skill and knowledge factors described below.

Prerequisite Knowledge	Relevant Courses
Basic knowledge of router installation and some experience with installation tools	
Cisco® GSR training or hands-on experience configuring and supporting Cisco® GSR routers	

Routing protocol configuration experience with Border Gateway Protocol (BGP), Intermediate System-to-Intermediate System (IS-IS), and Open Shortest Path First (OSPF)	<a href="#">CCNA®</a> & <a href="#">Building Scalable Cisco® Internetworks (BSCI)</a> & <a href="#">Building Core Networks with OSPF, BGP, and MPLS Boot Camp</a>
Knowledge of BGP multihomed, multi-AS configurations	<a href="#">Building Core Networks with OSPF, BGP, and MPLS Boot Camp</a> & <a href="#">Configuring BGP on Cisco® Routers</a>
Strong knowledge of MPLS configuration	<a href="#">Building Core Networks with OSPF, BGP, and MPLS Boot Camp (BCMPL)</a>
Multicast configuration experience	Cisco® Multicast Training course
Knowledge of Cisco router security implementation, including authentication, authorization, and accounting (AAA) and TACACS	<a href="#">Securing Cisco® Network Devices course (SND)</a>
Experience troubleshooting Cisco® routers in a large network environment	Cisco® Internetworking Troubleshooting (CIT)