



Configuring BGP on Cisco Routers (BGP)

Description

Training Configuring BGP on Cisco Routers (BGP)

The configuration of BGP on Cisco routers (BGP) is essential for any network engineer looking to master advanced routing protocols. In this training, you will learn how to configure, monitor, and troubleshoot BGP, a fundamental protocol for managing wide-area networks and interconnections between autonomous systems. Through practical exercises and concrete demonstrations, this training offers a clear and effective approach to understanding the BGP mechanisms.

This training is aimed at both technicians and network engineers who want to acquire indispensable skills in implementing and maintaining BGP networks. It is designed for those working on ISP networks, MPLS, or preparing for CCIE and CCIP certifications. You will have all the keys to ensure optimal performance and enhanced security on your networks.

Course Content

Module 1: Introduction to BGP

- Introduction to BGP
- Establishing a BGP session
- BGP Route Processing
- Basic BGP configuration
- Monitoring and troubleshooting BGP

Module 2: Route selection through control strategies

- Using BGP Multihoming networks
- Using AS-Path filters
- Filtering with Prefix-Lists
- Outbound route filtering
- Using Route Maps as BGP filters
- Implementing modifications in BGP Policy

Module 3: Route selection by attributes

- BGP Path attributes
- Influencing route selection with Weights
- Defining local BGP preferences
- Using AS-Path Prepending
- Understanding the MED attribute (Multi-Exit Discriminator)
- Addressing BGP Communities

Module 4: Customer-provider connectivity with BGP

- Identifying prerequisites for customer-provider connectivity
- Implementing customer-provider connectivity with static routing
- Connecting a Multihome client with a single provider
- Connecting a Multihome client with multiple providers

Module 5: Transit autonomous systems

- Functions of a transit system (Transit Autonomous System)
- Interaction of IBGP and EBGP in a transit AS
- Packet routing in a transit AS
- Configuring a transit AS
- Monitoring and troubleshooting IBGP in a transit AS

Module 6: Service provider network deployment

- Deploying IGP and BGP in service provider networks
- Introduction to Route Reflectors
- Network architecture with Route Reflectors
- Configuring and monitoring Route Reflectors
- Introduction to confederations
- Configuring and monitoring confeder
- Configuring and monitoring confederations

Module 7: Optimizing BGP

- Improving BGP convergence
- Limiting the number of prefixes received by a BGP neighbor
- Implementing BGP Peer Groups
- Using BGP Route Dampening

Documentation

- Digital course materials included

Participant profiles

- Network engineers
- Technicians working on ISP networks
- Professionals preparing for CCIE or CCIP certifications
- Network administrators managing BGP infrastructure

Prerequisites

- Good understanding of Cisco IOS configuration

- Knowledge of RIP, OSPF, EIGRP routing protocols
- Experience in network configuration and troubleshooting
- Skills in implementing Cisco solutions (CCNA)
- Basic knowledge of MPLS networks

Objectives

- Configure BGP on Cisco routers
- Monitor and troubleshoot BGP networks
- Optimize route selection with advanced strategies
- Use control policies to influence routing decisions
- Manage transit autonomous systems
- Improve BGP convergence in wide-area networks

Description

Configuring BGP on Cisco Routers (BGP) training

Niveau

Avancé

Classroom Registration Price (CHF)

4350

Virtual Classroom Registration Price (CHF)

4350

Duration (in Days)

5

Reference

BGP