€TRAINING

Configuring BGP on Cisco Routers BGP

21 - 25 October 2024
Madrid (Spain)

Configuring BGP on Cisco Routers BGP

Introduction:

This program is designed to prepare participants for the certification exam only.

This training program provides participants with in-depth knowledge and practical skills essential for configuring and managing Border Gateway Protocol BGP on Cisco routers. It empowers them to effectively handle inter-domain routing, optimize network performance, and ensure robust network connectivity.

Program Objectives:

By the end of this program, participants will be able to:

- Understand BGP fundamentals and its role in inter-domain routing.

- Configure and troubleshoot BGP on Cisco routers.

- Optimize BGP performance and manage BGP policies.

- Implement advanced BGP features for enhanced network stability.

- Prepare for BGP-related certification exams.

Targeted Audience:

- Network Engineers.

- Network Administrators.

- IT Professionals managing Cisco networks.

- Network Architects.

- Systems Engineers.

Program Outline:

Unit 1:

Introduction to BGP:

- Overview of BGP and its significance in inter-domain routing.

- Differences between BGP and other routing protocols.

- Understanding BGP attributes and path selection.

- Establishing BGP sessions and peer relationships.

- Case studies on real-world BGP implementations.

Unit 2:

Basic BGP Configuration:

- Steps to configure BGP on Cisco routers.

- Defining BGP neighbors and configuring peer sessions.

- Advertising and receiving BGP routes.

- Understanding and configuring BGP timers.

- Hands-on exercises on basic BGP configuration.

Unit 3:

BGP Policy and Path Control:

- Implementing BGP policies using route maps and prefix lists.

- Configuring BGP attributes for path manipulation.

- Using local preference, MED, and AS-path prepending.

- Techniques for BGP route filtering and aggregation.

- Practical scenarios on BGP policy configuration.

Unit 4:

Advanced BGP Features:

- Understanding and configuring BGP route reflectors and confederations.

- Implementing BGP multipath and load balancing.

- Configuring BGP for IPv6 and VPNv4.

- Troubleshooting common BGP issues and optimizing performance.

- Real-world examples of advanced BGP configurations.

Unit 5:

BGP Troubleshooting and Optimization:

- Techniques for monitoring and troubleshooting BGP sessions.

- Analyzing BGP routing tables and diagnosing routing issues.

- Tools and commands for BGP troubleshooting.

- Best practices for optimizing BGP performance and stability.

- Case studies on troubleshooting complex BGP networks.

Note: This program is designed to prepare participants for the certification exam only.