



BGP Border Gateway Protocol Course Overview

Border Gateway Protocol Course will give you brief knowledge of BGP, the routing protocol that is one of the prime principles of the Internet. You will get to know more about configuration of BGP on Cisco IOS routers, the theory of BGP, and detailed troubleshooting knowledge.

What you will learn?

- You will learn how to implement the correct BGP configuration to allow your network to act as an ISP
- How to configure BGP with multiple BGP connections to other autonomous systems
- Configure a provider network to behave as a transit autonomous system (AS)
- Enable inter-domain routing in a network scenario with multiple domains by learning how to Configure, monitor, and troubleshoot basic BGP.
- You will learn how to use BGP policy controls to influence the route selection process with minimal impact on BGP route processing in a network scenario where you must support connections to multiple ISPs
- How to configure BGP to connect the customer network to the Internet when multiple connections must be implemented
- How to enable route reflection and confederations as possible solutions to BGP scaling issues
- Advance the scalability of the BGP routing protocol in a typical network

Online – Weekend Classes

Study Material:- 24*7 Online Access of Live lectures, Streaming Recorded Videos, Online Lab Workbook, and Remote Virtual Lab access.

Duration:- 1 Month

About Trainer

The instructor of BGP has 8+ years of working experience in industry and verified with UniNets itself. The trainer has explained each content briefly and especially for the individuals who are willing to learn briefly about CCNP routing and switching exam topics. Experts can also get hand-on-training.

Course Content

BGP Overview

- Session Establishment
- Path Attributes
- Route Processing
- Basic Configuration
- Monitoring and Troubleshooting

BGP Transit Autonomous Systems

- Transit AS
- IBGP and EBGP in a Transit AS
- Forwarding Packets in a Transit AS
- Configuring a Transit AS
- Monitoring and Troubleshooting IBGP in a Transit AS

Route Selection Using Policy Controls

- Multihomed BGP Networks
- Employing AS Path Filters
- Filtering with Prefix Lists
- Outbound Route Filtering
- Applying Route Maps as BGP Filters
- Implementing Changes in BGP Policy

Route Selection Using Attributes

- BGP Route Selection with Weights
- BGP Local Preference
- AS-Path Prepending
- BGP Multi-Exit Discriminator (MED)
- Addressing BGP Communities

Customer-to-Provider Connectivity with BGP

- Connectivity Requirements
- Connectivity Using Static Routes
- Single or Multiple Service Providers

Scaling Service Provider Networks

- Scaling IGP and BGP in Service Provider Networks
- Designing Networks and Route Reflectors
- Configuring and Monitoring Route Reflectors
- Configuring and Monitoring Confederations

Optimizing BGP Scalability

- Improving BGP Convergence
- Limiting the Number of Prefixes Received from a BGP Neighbor
- Implementing BGP Peer Groups
- BGP Route Dampening



Multi-Protocol Label Switching Course

Multi-Protocol Label Switching Course is proposed to provide you introduction about MPLS topics, migration, installation, troubleshooting, operation, and inspection. The lectures of MPLS VPN and labs will explain you about implementation, models, troubleshooting, integrate, diversity, and flexibility of MPLS VPNs.

Candidate will get hand-on-training and theoretical knowledge of the course and get started with an overview of MPLS and its operation, followed by MPLS Virtual Private Network (VPN) deployment.

What you will learn?

- Explain Multiprotocol Label Switching (MPLS).
- Explain the advantages of a Brocade MPLS implementation.
- How to Implement MPLS network designs and configurations using Brocade routers.
- How to Implement Brocade L2 VPN networks.
- How to Implement Brocade L3 VPN networks.
- Explain how to implement Brocade Network Advisor in MPLS environments

Online – Weekend Classes

Study Material:- 24*7 Online Lab Access, Live lectures, Streaming Recorded Videos, Online Lab Workbook, and Remote Virtual Lab access.

Duration:- 1 Month

Requirements

- Candidates must have basic CCNA R&S Knowledge.

About Trainer:

The course has been created for those individuals who are willing to learn deeply about CCNP routing and switching exam concepts. The instructor of this training has 8+ years of experience in industry and is verified by UniNets. Experts can get hands-on training.

Course Content

MPLS Concepts

- MPLS Labels and Label Stack
- MPLS Applications

MPLS Label Assignment and Distribution

- Discovering LDP Neighbors
- Label Distribution in Frame-Mode MPLS
- Convergence in Frame-Mode MPLS
- MPLS Label Allocation, Distribution, and Retention Modes

Frame-Mode MPLS Implementation on Cisco IOS Platforms

- CEF Switching
- Configuring Frame-Mode MPLS
- Monitoring Frame-Mode MPLS
- Troubleshooting Frame-Mode MPLS

MPLS Virtual Private Network (VPN) Technology

- VPN Categorization
- MPLS VPN Architecture
- MPLS VPN Routing Model
- MPLS VPN Packet Forwarding

MPLS VPN Implementation

- MPLS VPN Mechanisms
- Configuring VRF Tables
- MP-BGP Session Between PE Routers
- Configuring Routing Protocols Between PE and CE Routers
- RIP
- EIGRP
- OSPF
- BGP
- MPLS VPN Operation
- Troubleshooting MPLS VPN

Complex MPLS VPNs

- Central Services VPNs
- Managed CE Router Service
- MPLS Managed Services

Integrated Internet Access with MPLS VPNs

- VPN Internet Access Topologies
- VPN Internet Access Implementation Methods
- Separating Internet Access from VPN Services
- Internet Access Backbone as a Separate VPN

MPLS Traffic Engineering

- Traffic Engineering (TE) Concepts
- MPLS TE Components
- MPLS TE Operations
- Configuring MPLS TE on Cisco IOS Platforms
- Monitoring Basic MPLS TE on Cisco IOS

Note: ***Most of the course topics are covered with hands-on lab exercises and others are theoretical

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