Configuring BGP on Cisco Routers

Course code: BGP

This course provides students with in-depth knowledge of BGP, the routing protocol that is one of the underlying foundations of the Internet and new-world technologies such as Multiprotocol Label Switching (MPLS). This curriculum covers the theory of BGP, configuration of BGP on Cisco IOS routers, detailed troubleshooting information and hands-on exercises that provide students with the skills needed to configure and troubleshoot BGP networks in customer environments. Different service solutions in the curriculum cover BGP network design issues and usage rules for various BGP features preparing students to design and implement efficient, optimal and trouble free BGP networks.

What we teach you

- Configure, monitor, and troubleshoot basic BGP to enable inter-domain routing in a network scenario with multiple domains
- 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
- Use BGP attributes to influence the route selection process in a network scenario where you must support multiple connections
- Implement the correct BGP configuration to successfully connect the customer network to the Internet in a network scenario where you must support multiple connections
- Enable the provider network to behave as a transit autonomous system in a typical service provider network with multiple BGP connections to other autonomous systems
- Identify common BGP scaling issues and enable route reflection and confederations as possible solutions to these issues in a typical service provider network with multiple BGP connections to other autonomous systems

Course outline

Module 1: BGP Overview

Module 2: BGP Transit Autonomous Systems

Module 3: Route Selection Using Policy Controls

Module 4: Route Selection Using Attributes

Module 5: Customer to Provider Connectivity with BGP

Module 6: Scaling Service Provider Networks

Module 7: Optimizing BGP Scalability

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