

Configuring BGP on Cisco Routers (BGP) v3.0

Associated Certifications: CCIP

Delivery Type: Instructor-led

Length 20-OCT-2003 to 24-OCT-2003
5 days

Prerequisites

- Completion of Interconnecting Cisco Networking Devices (ICND) or Cisco Certified Networking Associate (CCNA)
- Completion of Building Scalable Cisco Internetworks (BSCI) or equivalent

Course Content

The Configuring BGP on Cisco Routers (BGP) v3.0 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.

Course Objectives

After completing this course the student should be able to:

- Given a network scenario with multiple domains, configure, monitor and troubleshoot basic BGP to enable interdomain routing

- Given a network scenario where connections to multiple ISPs must be supported, use BGP policy controls to influence the route selection process with minimal impact on BGP route processing
- Given a network scenario where multiple connections must be supported, use BGP attributes to influence the route selection process
- Given customer connectivity requirements, implement the correct BGP configuration to successfully connect the customer's network to the Internet
- Given a typical service provider network with multiple BGP connections to other autonomous systems, enable the provider network to behave as a transit autonomous system
- Given a typical service provider network, identify common BGP scaling issues and enable route reflection and confederations as possible solutions to these issues
- Given a typical BGP network, use available BGP tools and features to optimize the scalability of the BGP routing protocol

Course Outline

Introduction

BGP Overview

Route Selection Using Policy Controls

Route Selection Using Attributes

Customer to Provider Connectivity with BGP

BGP Transit Autonomous System

Scaling Service Provider Networks

Optimizing BGP Scalability

Who Should Attend

- System Engineers, Channel Partners/Resellers, Customers