Cisco CCNP Implementing Cisco IP Routing , Part 4 of 4: Branch Office and IPv6

Meet the expert: Carlo has worked in the computer technologies industry since the mid-90s. He is also a certified member of Microsoft, Cisco, ISACA, PMI, CompTIA,

IIC, and EC-Council. He has designed and customized courses for private and public

sectors, including college curriculums, and has worked as a lead consultant engineer

in corporate Cyber security and Information Assurance training since 2001.

As a certified Microsoft Instructor, Ken has focused his career on various security aspects of computer and network technology since the early 1980s. He has offered a wide variety of IT training and high level consulting projects for Fortune 500 companies globally. Through the course of his extensive career, he has taught a full line of Microsoft, CompTIA, Cisco, and other high level IT Security curricula.

Prerequisites: This is part 4 in the series.

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Course description: Implementing Cisco IP Routing is a qualifying exam for the Cisco Certified Network Professional CCNP®. This course discusses Branch Office connectivity and mobile connectivity. It then covers everything you will need to know about IPv6 including: basic addresses, usage, routing, and tunneling

Course outline:

Branch Office Implementation
- Introduction
- Branch Office Challenges
- Branch Office Design Considerations
- The Thin Branch
- Broadband Technology Deployment
- Wireless Broadband and Municipal Broadband
- WiMAX and Broadband Types
- Verify PPPoA and Configure a NAT Pool
- Bind the ACL and NAT Pool
- Configure Static NAT and Identify NAT Interfaces
- Create a Tunnel Interface
- Demo: Static NATing
- Demo: Static NATing Continued
- Summary

Mobile Worker Implementations
- Introduction
- Mobile Worker Connectivity
- Business-Ready Mobile User Solution
- Business-Ready VPN Components
- Summary

Routing Traffic to Mobile Workers
- Introduction
- Easy VPN Server
- Routing Services for VPN Subnets
- Proxy ARP and Remote User Connections
- Summary

Introducing IPv6
- Introduction
- IPv6 Introduction
- IPv6 Features and MTU Discovery
- New IPv6 Features
- IPv6 Address Specifics
- Abbreviating IPv6 Addresses
- Summary

Verify IPv6 Unicast Addresses
- Introduction
- Enable IPv6 Routing
- Enable CEF for IPv6
- IPv6 on an Interface and Ethernet EUI-64
- Enable IP Unnumbered and Stateless Auto-Config
- Neighbor Detection Parameter and Neighbor Routers
- Summary

IPv6 and Static Routing
- Introduction
- IPv6 Routing
- Static Routing and Configuring IPv6 Static Routes
- Static Route Types and RIPng
- Enable and Config IPv6 RIP Process on an Interface
- Summary

Configure OSPFv3
- Introduction
- IPv6 Protocol Implementation and OSPFv3
- Link-Local Addresses and Multiple OSPFv3 Instances
- Security and SA Types for IPv6
- OSPFv3 Routing Process Parameters and Router ID
- Enable an OSPFv3 Instance and Specify Packet Cost
- Change OSPF Priority and Define Stub Areas
- Routes at Area Boundary and Trigger SPF Recalc
- Demo: Enable OSPFv3
- Demo: Configure Branch Routers
- Demo: Troubleshooting
- Demo: Troubleshooting Continued
- Summary

EIGRP for IPv6
- Introduction
- EIGRP for IPv6
- Routing Parameters and Define Router ID
- Enable EIGRP for IPv6 and Identify Stub Router
- Summary Aggregate Address
- Demo: Configure EIGRP
- Demo: Configure Branch Routers and Headquarters
- Demo: Passive Interface
- Demo: Troubleshooting
- Summary

Multiprotocol BGP
- Introduction
- Multiprotocol BGP
- BGP Router ID, Peers, and Routing Sessions
- Identify Peers and Configure Routing Sessions
- Identify Peers and Apply a Route Map
- Summary