Cisco Troubleshooting and Maintaining (CCNP TSHOOT), Part 3 of 5: Routing and Addressing

Meet the expert: Robert has more than 20 years of expertise in the fields of >sophisticated networking, information, and telecommunication technologies. He has

worked as an Information Technology Consultant and Instructor, consulting and

training in the networking realm of the IT Industry throughout Europe and USA since

2005. Clients include the United States Military, Mercedes Benz, Deutsche Telekom,

and Diversion German Government Entities.

Prerequisites: This is part 3 of the series.

Runtime: 02:51:28

Course description: This course helps prepare for the CCNP TSHOOT exam. it's recommended to take CCNP ROUTE and CCNP SWITCH courses to have an understanding before this course. This course discusses maintaining and troubleshooting routing solutions and troubleshooting addressing services.

Course outline:

EIGRP and OSPF
- Introduction
- Routing and Routing Data Structures
- Using IOS Commands to Verify Routing Functions
- Display the CEF FIB Table
- Verify Layer 3 to Layer 2 Mappings
- Clear FIB and Adjacency Entries
- IGP Routing Protocol Review
- EIGRP Review
- EIGRP Incremental Update Process
- Monitoring EIGRP with show Commands
- EIGRP Troubleshooting Example
- EIGRP Troubleshooting Example Continued
- OSPF Review: Process and Operation
- OSPF Review: Data Structures
- OSPF Review: Network Areas and LSAs
- OSPF Review: Information Flow Within an Area
- Summary

OSPF Troubleshooting and BGP
- Introduction
- OSPF Review: Information Flow Between Areas
- Monitoring OSPF with show Commands
- Monitoring OSPF with debug Commands
- OSPF Troubeshooting Example
- OSPF Troubleshooting Example Continued
- Route Redistribution Review
- Route Redistribution Review Continued
- Verifying and Troubleshooting Route Propagation
- OSPF to EIGRP Troubleshooting Process
- BGP Overview
- BGP Route Processing and Data Structures
- BGP Neighbor and BGP Tables
- Peering
- Monitoring BGP with show Commands
- Monitoring BGP with debug Commands
- Summary

Troubleshooting BGP
- Introduction
- BGP Troubleshooting Example
- BGP Troubleshooting Example Continued
- Demo: Troubleshooting Routing Protocols
- Demo: Routing Protocols Continued
- Demo: Configure DHCP
- Summary

NAT and DHCP
- Introduction
- NAT/PAT Operation Review
- NAT/PAT Operation Review Continued
- Troubleshooting NAT/PAT Issues
- Troubleshooting NAT/PAT Issues
- NAT/PAT Troubleshooting Example 1
- Using NBAR for Protocol Discovery
- NAT/PAT Troubleshooting Example 2
- NAT/PAT Troubleshooting Example 2 Continued
- DHCP Overview
- Client-Server Communication
- DCHP Packet Message Types
- Three DHCP Roles a Router May Take
- DHCP Troubleshooting Issues Continued
- DHCP Relay Agent
- DHCP Parameters and Options
- DHCP Troubleshooting Issues
- DHCP Troubleshooting Commands
- Summary

DHCP Troubleshooting and IPv6
- Introduction
- DHCP Troubleshooting Example 1
- DHCP Troubleshooting Example 2
- DHCP Troubleshooting Example 3
- IPv6 vs. IPv4
- Troubleshooting IPv6 Issues
- IPv6 Troubleshooting with show Commands
- IPv6 Troubleshooting with debug Commands
- IPv6 Troubleshooting Example 1
- IPv6 Troubleshooting Example 2
- IPv6 Troubleshooting Example 2 Continued
- Summary

IPv6 Troubleshooting
- Introduction
- IPv6 Troubleshooting Example 3
- IPv6 Troubleshooting Example 3 Continued
- IPv6 Troubleshooting Example 4
- IPv6 Troubleshooting Example 4 Summary
- Demo: Set up DHCP
- Demo: IP Configuration
- Summary