Cisco Troubleshooting and Maintaining (CCNP TSHOOT), Part 4 of 5: Performance and Convergence

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 4 of the series.

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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 troubleshooting network performance issues and converged networks.

Course outline:

NetFlow, IP SLA, and AutoQoS
- Introduction
- Switch Port/Interface Issues
- Cisco ANS Overview
- ANS Optimization Cycle
- Baselining and Application Optimization Tools
- NetFlow Overview
- NetFlow Configuration and Statistics
- Cisco IP SLA Overview
- Cisco IP SLA Configuration
- Cisco IP SLA Responder
- NBAR and IP SLA Responders
- SLB Overview
- QoS and AutoQoS
- Common NetFlow Issues
- Common IP SLA Issues
- Common NBAR Issues
- Common AutoQoS Issues
- NAS Troubleshooting Commands
- NetFlow Troubleshooting Example
- IP SLA Troubleshooting Example
- AutoQoS Troubleshooting Example
- Identifying Switch Performance Issues
- AutoQoS Troubleshooting Example Continued
- Identifying Switch Performance Issues Continued
- Summary

Switch Performance Issues
- Introduction
- Troubleshooting Example: Duplex
- Automatic Medium-Dependent Interface Crossover
- Switch Forwarding Hardware
- Troubleshooting TCAM Problems
- Troubleshooting TCAM Problems Continued
- Troubleshooting High CPU Load on Switches
- DHCP Issues
- Spanning-Tree Issues
- HSRP Issues
- Switch Performance Issue 1
- Switch Performance Issue 2
- Switch Performance Issue 3
- Summary

Troubleshooting and Wireshark
- Introduction
- Troubleshooting High Router CPU Load
- ARP Input
- Net Background, IP Background, and TCP Timer
- Troubleshooting Switch Paths
- Troubleshooting CEF
- Analyzing Packet Forwarding
- Troubleshooting Router Memory Issues
- Wireshark
- Demo: Installing Wireshark
- Summary

Wireless Connectivity
- Introduction
- Section Overview
- Common Wireless Integration Issues
- Standalone Wireless Solutions
- Split MAC or Lightweight Solution
- Wireless Integration Issues Continued
- Wireless Integration Issue Tools
- WLAN Connectivity Troubleshooting Example 1
- WLAN Connectivity Troubleshooting Example 2
- WLAN Connectivity Troubleshooting Example 3
- WLAN Connectivity Troubleshooting Example 4
- Summary

Unified Communications
- Introduction
- Unified Communications Integration Issues
- IP Phones
- QoS
- Unified Communications Commands
- Voice Troubleshooting Example 1
- Voice Troubleshooting Example 2
- Voice Troubleshooting Example 3
- Summary

Video Integration
- Introduction
- Video Application Types and Common Issues
- Multicast Operation
- Troubleshooting Video Integration Issues
- Video Integration Troubleshooting Example 1
- Video Integration Troubleshooting Example 2
- Demo: Install SolarWinds
- Demo: Network Sonar Wizard
- Demo: Configure Alerts
- Summary