

Troubleshooting and Maintaining Cisco IP Networks (CS-TSHOOT)

Modality: Virtual Classroom

Duration: 4 Days

CLC: 31 Units

About this Course:

The updated TSHOOT course adds some important updates and follows an updated blueprint. Some outdated topics have been excluded or revised and simplified, and several other new topics related to IPv6 routing have been included in the curriculum. The technical material has been revised and tailored according to the Cisco IOS Software Release 15.

The objective of the course is to help the student acquire the relevant skills and knowledge from CCNA Routing and Switching and build upon those abilities to plan, execute, and monitor a scalable routing network. The student will also find the course material useful to prepare for Cisco: 300-135 TSHOOT exam.

This course is part of the following Boot Camps:

- CS-CCNP-RS Cisco Certified Network Professional (CCNP) Training Boot Camp (CS-CCNP-RS)

A professional Cisco Certified Network Engineer earns an average salary of \$77,484 per year.

Course Objectives:

- Troubleshooting methods, approaches, and processes
- Suggested network maintenance practices
- Employing fundamental and specific troubleshooting tools
- An irrelevant Internet gateway or ISP failing to register a backup connectivity
- OSPF, EIGRP and BGP concerns along with redistribution
- HSRP, VRRP, and GLBP issues
- EtherChannel issues
- Various other issues such as NTP, DNS, default routes, IP SLAs, GRE and AAA
- When headquarters or branch clients are inadequate in accessing internal devices or the Internet

- When a user fails to connect to a network device through SSH or Telnet
- When devices fail to obtain a DHCP-provided address

Audience:

- Network engineers and technicians
- Support engineers
- Systems engineers
- Network analysts
- Senior network administrators
- Professionals entitled to jobs regarding executing, verifying, and troubleshooting routed and switched enterprise networks

Prerequisites:

Students are duly suggested to take the ROUTE v2.0 and SWITCH v2.0 training. Furthermore, knowledge and experience regarding the implementation and verification of enterprise routing and switching technologies should be pursued that includes:

- Layer 2 switching such as VLANs, VLAN ACLs, and switch security
- Link aggregation protocols
- Different kinds of STP
- Solutions of Inter-VLAN routing
- First Hop Redundancy Protocols: HSRP, VRRP, and GLBP
- Branch office operations
- EIGRP and OSPF routing protocols
- Layer 3 path control
- Redistribution
- Internal and External BGP
- IPv4 and IPv6 networking

Recommended Prerequisite Courses:

- Implementing Cisco IP Routing (ROUTE)
- Implementing Cisco Switched Networks (SWITCH)

Course Outline:

Lesson 1. Tools and Methodologies of Troubleshooting

- Describing Troubleshooting Methodologies
- Using Troubleshooting Procedures
- Following Recommended Practices During Routine Network Maintenance
- Using Basic IOS Troubleshooting Tools
- Using Specialized Troubleshooting Tools

Lesson 2. Troubleshooting at SECHNIK Networking Ltd.

- Debrief of the each of the three Troubleshooting at SECHNIK Networking Ltd. Labs
- Troubleshooting issues with trunks, NAT, interfaces, IPv6, network layer connectivity, error-disabled ports, DHCP, passive interfaces

Lesson 3. Troubleshooting at TINC Garbage Disposal Ltd.

- Debrief of the each of the four Troubleshooting at TINC Garbage Disposal Ltd. Labs
- Troubleshooting issues with BGP neighborship, port security, VLANs, native VLAN, OSPF adjacency, management access, HSRP, routing sources, VRRP, EtherChannel, GLBP, DHCP snooping

Lesson 4. Troubleshooting at PILE Forensic Accounting Ltd.

- Debrief of the each of the five Troubleshooting at PILE Forensic Accounting Ltd. Labs
- Troubleshooting issues with EIGRP adjacency, BGP filtering and route selection, NTP, inter-VLAN routing, DNS, remote device management, EIGRP named configuration, EIGRP stub, default routes, management plane security.

Lesson 5. Troubleshooting at Bank of POLONA Ltd.

- Debrief of the each of the four Troubleshooting at POLONA Ltd. Labs.
- Troubleshooting issues with redistribution, FHRP tracking, IP SLA, EIGRP summarization, basic RIPng, ACLs, GRE tunnels, OSPF summarization, AAA, OSPF for IPv6, OSPF stub areas.

Lesson 6. Troubleshooting at RADULKO Transport Ltd.

- Debrief of the each of the four Troubleshooting at RADULKO Transport Ltd. Labs.
- Troubleshooting issues with STP, PBR, CDP, LLDP, VTP, EIGRP for IPv6, MP-BGP, and OSPFv3 address families

Lab Outline

The following discovery labs are included in this course:

- Discovery 1: Maintaining and Documenting a Network
- Discovery 2: Troubleshooting Connectivity

The following challenge labs are included in this course:

- Challenge 1: First Troubleshooting at SECHNIK Networking Ltd.
- Challenge 2: Second Troubleshooting at SECHNIK Networking Ltd.
- Challenge 3: Third Troubleshooting at SECHNIK Networking Ltd.
- Challenge 4: First Troubleshooting at TINC Garbage Disposal Ltd.
- Challenge 5: Second Troubleshooting at TINC Garbage Disposal Ltd.
- Challenge 6: Third Troubleshooting at TINC Garbage Disposal Ltd.
- Challenge 7: Fourth Troubleshooting at TINC Garbage Disposal Ltd.
- Challenge 8: First Troubleshooting at PILE Forensic Accounting Ltd.
- Challenge 9: Second Troubleshooting at PILE Forensic Accounting Ltd.
- Challenge 10: Third Troubleshooting at PILE Forensic Accounting Ltd.
- Challenge 11: Fourth Troubleshooting at PILE Forensic Accounting Ltd.
- Challenge 12: Fifth Troubleshooting at PILE Forensic Accounting Ltd.
- Challenge 13: First Troubleshooting at Bank of POLONA Ltd.
- Challenge 14: Second Troubleshooting at Bank of POLONA Ltd.
- Challenge 15: Third Troubleshooting at Bank of POLONA Ltd.
- Challenge 16: Fourth Troubleshooting at Bank of POLONA Ltd.
- Challenge 17: First Troubleshooting at RADULKO Transport Ltd.
- Challenge 18: Second Troubleshooting at RADULKO Transport Ltd.
- Challenge 19: Third Troubleshooting at RADULKO Transport Ltd.
- Challenge 20: Fourth Troubleshooting at RADULKO Transport Ltd.

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