



# TSHOOT - Troubleshooting and Maintaining Cisco IP Networks v2.0

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<b>Code:</b>	5591
<b>Length:</b>	5 days
<b>URL:</b>	<a href="#">View Online</a>

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## *This course includes Cisco Training Exclusives*

Accelerate your Cisco learning experience with complimentary access to the IT Skills Video On-Demand Library, Boson practice exams, *Introduction to Cybersecurity* digital learning course, course recordings, IT Resource Library, and digital courseware.

In this course, you will learn and practice techniques to monitor and troubleshoot routed and switched networks through extensive hands-on lab exercises. Troubleshooting methods, approaches, procedures, and tools are explored. A series of different organizations are introduced for each a set of troubleshooting scenarios that are presented. You will attempt to solve as many of the troubleshooting tickets as you can; the debrief includes review information that will help you further understand the specific issues raised in the scenarios.

For on-demand learning, you will have access to this course for 12 months from the purchase date.

## Skills Gained

- Troubleshooting methods, approaches, and procedures
- Recommended network maintenance practices
- Using basic and specialized troubleshooting tools
- Troubleshooting:
  - A redundant Internet gateway or redundant ISP fails to provide backup connectivity
  - OSPF, EIGRP and BGP issues, including redistribution
  - HSRP, VRRP, and GLBP issues
  - EtherChannel issues
  - Other issues including NTP, DNS, default routes, IP SLAs, AAA, and GRE
  - When headquarters or branch clients are unable to access internal devices or the Internet
  - When you are unable to connect to a network device using SSH or Telnet
  - When devices are unable to acquire a DHCP-provided address

## Who Can Benefit

- Network engineers and technicians
- Support engineers
- Systems engineers
- Network analysts
- Senior network administrators
- Anyone involved in implementing, verifying, and troubleshooting routed and switched enterprise networks

## Prerequisites

- Taking ROUTE v2.0 and SWITCH v2.0 is highly recommended
- Knowledge of and experience with the implementation and verification of enterprise routing and switching technologies that includes:
  - Layer 2 switching including VLANs, VLAN ACLs, and switch security
  - Link aggregation protocols
  - Various types of STP
  - Inter-VLAN routing solutions
  - 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

## Course Details

**Students will get 50 hours of total lab time that can be used within a 90-day period that starts when they first log in to the labs.**

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### 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

### 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

#### **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.

#### **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.

#### **6. Troubleshooting at RADULKO Transport Ltd. (NOTE: this module is not done in class)**

- 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

**Students will get 50 hours of total lab time that can be used within a 90-day period that starts when they first log in to the labs.**

- 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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