Learning Services

Troubleshooting and Maintaining Cisco IP Networks (TSHOOT) v2.0 Technical Edition

Overview

The Troubleshooting and Maintaining Cisco IP Networks (TSHOOT) version 2.0 Technical Edition Cisco® Training on Demand is an all-inclusive training solution designed to teach you how to plan and perform regular maintenance on complex enterprise routing and switching networks. You first learn how to use technology-based practices and a systematic approach to network troubleshooting. Then you learn how to use both basic Cisco IOS® Software troubleshooting tools and specialized tools such as syslog, NetFlow, and the Cisco IOS® Embedded Event Manager (EEM) to assist in your troubleshooting efforts.

In the hands-on labs, you learn techniques and tools to troubleshoot and maintain complex routing and switching networks. You also learn to troubleshoot for network connectivity issues, IPv6 connectivity and assignment problems, and problems with routing loops. You learn about Enhanced Interior Gateway Routing Protocol (EIGRP), Open Shortest Path First (OSPF), and Border Gateway Protocol (BGP) routing faults as well. In addition, you work through Dynamic Host Configuration (DHCP) addressing issues, network security problems, and VLAN configuration as well as several other common network problems. A core goal of this course is gaining the ability to learn new concepts and reinforcing them through a wide range of integrated lab scenarios. Through several case studies, you will be presented with troubleshooting opportunities across multiple lab scenarios.

Duration

The TSHOOT v2.0 Technical Edition Training on Demand consists of six modules totaling more than 15 hours of video, along with 22 hands-on lab exercises.
Target Audience
The primary audience for this course is individuals responsible for supporting routing and switching networks.

Objectives
Upon completion of this course, you should be able to:

- Plan and document the most commonly performed maintenance functions in complex networks
- Develop a troubleshooting process to identify and resolve problems in complex enterprise networks
- Select tools that best support specific troubleshooting and maintenance processes in large, complex enterprise networks
- Practice maintenance procedures and fault resolution in switching-based environments and routing-based networks in a secure infrastructure
- Troubleshoot and maintain integrated, complex enterprise networks

Course Prerequisites
The knowledge and skills necessary before attending this course are:

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

In addition, students should have practical experience in installing, operating, and maintaining Cisco routers and switches.

Course Outline
- Module 1: Tools and Methodologies of Troubleshooting
- Module 2: Troubleshooting Day 1: SECHNIK Networking Ltd.
- Module 3: Troubleshooting Day 2: TINC Garbage Disposal Ltd.
- Module 4: Troubleshooting Day 3: PILE Forensic Accounting Ltd.
- Module 5: Troubleshooting Day 4: Bank of POLONA Ltd.
- Module 6: Troubleshooting: RADULKO Transport Ltd.
Lab Outline

This course contains 22 hands-on virtual lab exercises, powered by Cisco Learning Labs and Cisco IOL (Cisco IOS® Software on Linux).

Topology for all labs in the course:

The labs included in this course are:

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

Instructor Bio
Daniel Krupicka is a networking and security consultant who has been designing, implementing, and troubleshooting Cisco technologies since the mid-1990s. He is a CCIE® and CCS® expert whose passion for technology and solving complex problems is brought into the classroom with edgy humor, engaging questions, and sage advice from the real world.

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