Learning Services

Cisco Training on Demand

Troubleshooting and Maintaining Cisco IP Networks (TSHOOT)

Overview

The Troubleshooting and Maintaining Cisco IP Networks (TSHOOT) Version 2.0 Cisco Training on Demand is an all-inclusive training solution designed to teach you how to plan and perform regular maintenance on complex enterprise routed and switched networks. You first learn how to use technology-based practices and a systematic approach to perform network troubleshooting. Then you learn to use both basic Cisco IOS® troubleshooting tools and other specialized tools, such as Syslog, Netflow, and Cisco IOS Embedded Event Manager (EEM) to assist in troubleshooting efforts.

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

Interested in purchasing this course in volume at discounts for your company? Contact ctod-sales@cisco.com.
Duration

The TSHOOT Training on Demand course consists of 6 modules and 49 lessons, totaling more than 15 hours of video along with 20 hands-on lab exercises.

Target Audience

This course is designed for individuals responsible for supporting routing and switching networks, and those preparing for the 300-135 TSHOOT exam.

Objectives

After completing 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:

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

In addition, you 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.
Labs Outline

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

Figure 1. Topology for All Labs in Troubleshooting and Maintaining Cisco IP Networks

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: Daniel Krupicka

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

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