



Troubleshooting and Maintaining Cisco IP Networks

36 Hours

Course Overview

Cisco Certified Network Professional (CCNP) Routing and Switching certification validates the ability to plan, implement, verify and troubleshoot local and wide-area enterprise networks and work collaboratively with specialists on advanced security, voice, wireless and video solutions. The CCNP Routing and Switching certification is appropriate for those with at least one year of networking experience who are ready to advance their skills and work independently on complex network solutions. Those who achieve CCNP Routing and Switching have demonstrated the skills required in enterprise roles such as network engineer, support engineer, systems engineer or network technician. The routing and switching protocol knowledge from this certification will provide a lasting foundation as these skills are equally relevant in the physical networks of today and the virtualized network functions of tomorrow.

Delivery Method:

Facilitated, self-paced, classroom-delivery learning model with structured hands-on activities.

Prerequisites:

Valid CCNA certification or any CCIE Certification can act as a pre-requisite..

Course Objectives

Upon completing this course, the learner will be able to meet these overall objectives:

Describe the troubleshooting tools and methodologies that are used to identify and resolve issues in complex enterprise networks

Isolate and fix the network issues that your company, SECHNIK Networking Ltd., is facing

Isolate and fix the network issues that your customer, TINC Garbage Disposal Ltd., is facing

Isolate and fix the network issues that your customer, PILE Forensic Accounting Ltd., is facing

Isolate and fix the network issues that your customer, Bank of POLONA Ltd., is facing

Isolate and fix the network issues that your customer, RADULKO Transport Ltd., is facing



Course Outline

- Chapter 1 Introduction to Troubleshooting and Network Maintenance
- Chapter 2 Troubleshooting and Maintenance Tools
- Chapter 3 Troubleshooting Device Performance
- Chapter 4 Troubleshooting Layer 2 Trunks, VTP, and VLANs
- Chapter 5 Troubleshooting STP and Layer 2 EtherChannel
- Chapter 6 Troubleshooting Inter-VLAN Routing and Layer 3 EtherChannels
- Chapter 7 Troubleshooting Switch Security Features
- Chapter 8 Troubleshooting First-Hop Redundancy Protocols
- Chapter 9 Troubleshooting IPv4 Addressing and Addressing Technologies
- Chapter 10 Troubleshooting IPv6 Addressing and Addressing Technologies
- Chapter 11 Troubleshooting IPv4 and IPv6 ACLs and Prefix Lists
- Chapter 12 Troubleshooting Basic IPv4/IPv6 Routing and GRE Tunnels
- Chapter 13 Troubleshooting RIPv2 and RIPv6
- Chapter 14 Troubleshooting EIGRP
- Chapter 15 Troubleshooting OSPF
- Chapter 16 Troubleshooting Route Maps and Policy-Based Routing
- Chapter 17 Troubleshooting Redistribution
- Chapter 18 Troubleshooting BGP
- Chapter 19 Troubleshooting Management Protocols and Tools
- Chapter 20 Troubleshooting Management Access
- Chapter 21 Additional Trouble Tickets
- Chapter 22 Final Preparation