

CCNP Routing and Switching

Implementing Cisco IP Routing (ROUTE) 2.0

Course Objectives

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

- Describe routing protocols, different remote connectivity options and their impact on routing and implement RIPng
- Configure EIGRP in IPv4 and IPv6 environment
- Configure OSPF in IPv4 and IPv6 environment
- Implement route redistribution using filtering mechanisms
- Implement path control using policy based routing and IP SLA
- Implement enterprise Internet connectivity
- Secure Cisco routers according to best practices and configure authentication for routing protocols

Course Outline

- Module 1: Basic Network and Routing Concepts
- Module 2: EIGRP Implementation
- Module 3: OSPF Implementation
- Module 4: Configuration of Redistribution
- Module 5: Path Control Implementation
- Module 6: Enterprise Internet Connectivity
- Module 7: Routers and Routing Protocol Hardening

Implementing Cisco IP Switched Networks (SWITCH) 2.0

Course Objectives

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

- Describe the hierarchical campus structure, basic switch operation, use of SDM templates, PoE, and LLDP
- Implement VLANs, trunks, explain VTP, implement DHCP in IPv4 and IPv6 environment, and configure port aggregation
- Implement and optimize STP mechanism that best suits your network - PVSTP+, RPVSTP+, or MSTP
- Configure routing on a multilayer switch

- Configure NTP, SNMP, IP SLA, port mirroring, and verify StackWise and VSS operation
- Implement First Hop redundancy in IPv4 and IPv6 environments
- Secure campus network according to recommended practices

Course Outline

- Module 1: Basic Concepts and Network Design
- Module 2: Campus Network Architecture
- Module 3: Spanning Tree Implementation
- Module 4: Configuring Inter-VLAN Routing
- Module 5: Implementing High Availability Networks
- Module 6: First Hop Redundancy Implementation
- Module 7: Campus Network Security

Troubleshooting and Maintaining Cisco IP Networks (TSHOOT) 2.0

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

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