



# CCNA Exploration 2 – Routing Protocols and Concepts v4.0 – Structura cursului (Course Outline)

Chapter 1. Introduction to Routing and Packet Forwarding

Chapter 2. Static Routing

Chapter 3. Introduction to Dynamic Routing Protocols

Chapter 4. Distance Vector Routing Protocols

Chapter 5. RIP Version 1

Chapter 6. VLSM and CIDR

Chapter 7. RIPv2

Chapter 8. The Routing Table: A Closer Look

Chapter 9. EIGRP

Chapter 10. Link-State Routing Protocols

Chapter 11. OSPF

#### Chapter 1. Introduction to Routing and Packet Forwarding

- 1.0 Chapter Introduction
- 1.1 Inside the Router
- 1.2 CLI Configuration and Addressing
- 1.3 Building the Routing Table
- 1.4 Path Determination and Switching Functions
- 1.5 Router Configuration Labs
- 1.6 Chapter Labs
- 1.7 Chapter Summary
- 1.8 Chapter Quiz

#### **Chapter 2. Static Routing**

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- 2.1 Routers in Networks
- 2.2 Router Configuration Review
- 2.3 Exploring Directly-Connected Networks
- 2.4 Static Routes with "Next Hop" Addresses
- 2.5 Static Routes with Exit Interfaces
- 2.6 Summary and Default Static Routes
- 2.7 Managing and Troubleshooting Static Routes
- 2.8 Static Route Configuration Labs





- 2.9 Chapter Labs
- 2.10 Chapter Summary
- 2.11 Chapter Quiz

#### Chapter 3. Introduction to Dynamic Routing Protocols

- 3.0 Chapter Introduction
- 3.1 Introduction and Advantages
- 3.2 Classifying Dynamic Routing Protocols
- 3.3 Metrics
- 3.4 Administrative Distances
- 3.5 Routing Protocol and Subnetting Activities
- 3.6 Chapter Labs
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- 3.8 Chapter Quiz

#### **Chapter 4. Distance Vector Routing Protocols**

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- 4.1 Introduction to Distance Vector Routing Protocols
- 4.2 Network Discovery
- 4.3 Routing Table Maintenance
- 4.4 Routing Loops
- 4.5 Distance Vector Routing Protocols Today
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- 4.8 Chapter Quiz

#### Chapter 5. RIP Version 1

- 5.0 Chapter Introduction
- 5.1 RIPv1: Distance Vector, Classful Routing Protocol
- 5.2 Basic RIPv1 Configuration
- 5.3 Verification and Troubleshooting
- 5.4 Automatic Summarization
- 5.5 Default Route and RIPv1





- 5.6 Chapter Labs
- 5.7 Chapter Summary
- 5.8 Chapter Quiz

#### Chapter 6. VLSM and CIDR

- 6.0 Chapter Introduction
- 6.1 Classful and Classless Addressing
- **6.2 VLSM**
- 6.3 CIDR
- 6.4 VLSM and Route Summarization Activity
- 6.5 Chapter Labs
- 6.6 Chapter Summary
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#### Chapter 7. RIPv2

- 7.0 Chapter Introduction
- 7.1 RIPv1 Limitations
- 7.2 Configuring RIPv2
- 7.3 VLSM and CIDR
- 7.4 Verifying and Troubleshooting RIPv2
- 7.5 RIPv2 Configuration Labs
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- 7.8 Chapter Quiz

#### Chapter 8. The Routing Table: A Closer Look

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- 8.1 The Routing Table Structure
- 8.2 Routing Table Lookup Process
- 8.3 Routing Behavior
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#### 8.7 Chapter Quiz

#### Chapter 9. EIGRP

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- 9.1 Introduction to EIGRP
- 9.2 Basic EIGRP Configuration
- 9.3 EIGRP Metric Calculation
- 9.4 DUAL
- 9.5 More EIGRP Configuration
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#### Chapter 10. Link-State Routing Protocols

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- 10.1 Link-State Routing Protocols
- 10.2 Implementing Link-State Routing Protocols
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#### Chapter 11. OSPF

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- 11.1 Introduction to OSPF
- 11.2 Basic OSPF Configuration
- 11.3 The OSPF Metric
- 11.4 OSPF and Multi-Access Networks
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- 11.6 OSPF Configuration Labs
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