

uCertify

Course Outline

**Cisco CCNA 200-125 Certified Network
Associate**



23 Apr 2024

1. Course Objective
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3. Exercises, Quizzes, Flashcards & Glossary
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4. Expert Instructor-Led Training
5. ADA Compliant & JAWS Compatible Platform
6. State of the Art Educator Tools
7. Award Winning Learning Platform (LMS)
8. Chapter & Lessons

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Videos and How To

9. Practice Test

Here's what you get

Features

10. Post-Assessment

1. Course Objective

Cisco CCNA 200-125 Certified Network Associate course is interactive learning resources that help candidates prepare for the Cisco CCNA 200-125 certification exam. The course covers the 20-125 exam objectives and includes topics such as TCP/IP networking; LANs; WANs; IPv4 addressing and routing; TCP/IP transport and application; command-line interface; switch interfaces; switch management; troubleshooting Ethernet LANs; and many more. The course also provides knowledge and skills for subnet designing; operating Cisco routers; IPv4 addressing with its exam preparation material.

2. Pre-Assessment

Pre-Assessment lets you identify the areas for improvement before you start your prep. It determines what students know about a topic before it is taught and identifies areas for improvement with question assessment before beginning the course.

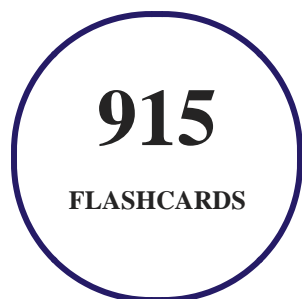
3. Quizzes

Quizzes test your knowledge on the topics of the exam when you go through the course material. There is no limit to the number of times you can attempt it.



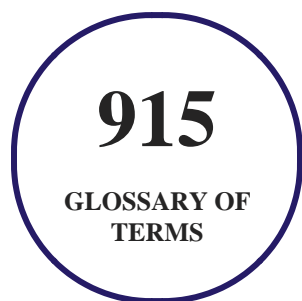
4. flashcards

Flashcards are effective memory-aiding tools that help you learn complex topics easily. The flashcard will help you in memorizing definitions, terminologies, key concepts, and more. There is no limit to the number of times learners can attempt these. Flashcards help master the key concepts.



5. Glossary of terms

uCertify provides detailed explanations of concepts relevant to the course through Glossary. It contains a list of frequently used terminologies along with its detailed explanation. Glossary defines the key terms.



6. Expert Instructor-Led Training

uCertify uses the content from the finest publishers and only the IT industry's finest instructors. They have a minimum of 15 years real-world experience and are subject matter experts in their fields. Unlike a live class, you can study at your own pace. This creates a personal learning experience and gives you all the benefit of hands-on training with the flexibility of doing it around your schedule 24/7.

7. ADA Compliant & JAWS Compatible Platform

uCertify course and labs are ADA (Americans with Disability Act) compliant. It is now more accessible to students with features such as:

- Change the font, size, and color of the content of the course
- Text-to-speech, reads the text into spoken words
- Interactive videos, how-tos videos come with transcripts and voice-over
- Interactive transcripts, each word is clickable. Students can clip a specific part of the video by clicking on a word or a portion of the text.

JAWS (Job Access with Speech) is a computer screen reader program for Microsoft Windows that reads the screen either with a text-to-speech output or by a Refreshable Braille display. Student can easily navigate uCertify course using JAWS shortcut keys.

8. State of the Art Educator Tools

uCertify knows the importance of instructors and provide tools to help them do their job effectively. Instructors are able to clone and customize course. Do ability grouping. Create sections. Design grade scale and grade formula. Create and schedule assessments. Educators can also move a student from self-paced to mentor-guided to instructor-led mode in three clicks.

9. Award Winning Learning Platform (LMS)

uCertify has developed an award winning, highly interactive yet simple to use platform. The SIIA CODiE Awards is the only peer-reviewed program to showcase business and education technology's finest products and services. Since 1986, thousands of products, services and solutions have been recognized for achieving excellence. uCertify has won CODiE awards consecutively for last 7 years:

- **2014**
 1. Best Postsecondary Learning Solution
- **2015**
 1. Best Education Solution

2. Best Virtual Learning Solution
3. Best Student Assessment Solution
4. Best Postsecondary Learning Solution
5. Best Career and Workforce Readiness Solution
6. Best Instructional Solution in Other Curriculum Areas
7. Best Corporate Learning/Workforce Development Solution

- **2016**

1. Best Virtual Learning Solution
2. Best Education Cloud-based Solution
3. Best College and Career Readiness Solution
4. Best Corporate / Workforce Learning Solution
5. Best Postsecondary Learning Content Solution
6. Best Postsecondary LMS or Learning Platform
7. Best Learning Relationship Management Solution

- **2017**

1. Best Overall Education Solution
2. Best Student Assessment Solution
3. Best Corporate/Workforce Learning Solution
4. Best Higher Education LMS or Learning Platform

- **2018**

1. Best Higher Education LMS or Learning Platform
2. Best Instructional Solution in Other Curriculum Areas
3. Best Learning Relationship Management Solution

- **2019**

1. Best Virtual Learning Solution
2. Best Content Authoring Development or Curation Solution
3. Best Higher Education Learning Management Solution (LMS)

- **2020**

1. Best College and Career Readiness Solution
2. Best Cross-Curricular Solution
3. Best Virtual Learning Solution

10. Chapter & Lessons

uCertify brings these textbooks to life. It is full of interactive activities that keeps the learner engaged. uCertify brings all available learning resources for a topic in one place so that the learner can efficiently learn without going to multiple places. Challenge questions are also embedded in the chapters so learners can attempt those while they are learning about that particular topic. This helps them grasp the concepts better because they can go over it again right away which improves learning.

Learners can do Flashcards, Exercises, Quizzes and Labs related to each chapter. At the end of every lesson, uCertify courses guide the learners on the path they should follow.

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- Part Features
- Book Organization, Lessons, and Appendixes

Chapter 2: Introduction to TCP/IP Networking

- Perspectives on Networking
- TCP/IP Networking Model
- OSI Networking Model

- Lesson Summary
- Review All the Key Topics

Chapter 3: Fundamentals of Ethernet LANs

- An Overview of LANs
- Building Physical Ethernet Networks with UTP
- Sending Data in Ethernet Networks
- Lesson Summary
- Review All the Key Topics

Chapter 4: Fundamentals of WANs

- Leased-Line WANs
- Ethernet as a WAN Technology
- Accessing the Internet
- Lesson Summary
- Review All the Key Topics

Chapter 5: Fundamentals of IPv4 Addressing and Routing

- Overview of Network Layer Functions

- IPv4 Addressing
- IPv4 Routing
- IPv4 Routing Protocols
- Other Network Layer Features
- Lesson Summary
- Review All the Key Topics

Chapter 6: Fundamentals of TCP/IP Transport and Applications

- TCP/IP Layer 4 Protocols: TCP and UDP
- TCP/IP Applications
- Lesson Summary
- Review All the Key Topics

Chapter 7: Using the Command-Line Interface

- Accessing the Cisco Catalyst Switch CLI
- Configuring Cisco IOS Software
- Lesson Summary
- Review All the Key Topics

- Command References

Chapter 8: Analyzing Ethernet LAN Switching

- LAN Switching Concepts
- Verifying and Analyzing Ethernet Switching
- Lesson Summary
- Review All the Key Topics

Chapter 9: Configuring Basic Switch Management

- Securing the Switch CLI
- Enabling IPv4 for Remote Access
- Miscellaneous Settings Useful in Lab
- Lesson Summary
- Review All the Key Topics

Chapter 10: Configuring Switch Interfaces

- Configuring Switch Interfaces
- Port Security
- Lesson Summary

- Review All the Key Topics

Chapter 11: Analyzing Ethernet LAN Designs

- Analyzing Collision Domains and Broadcast Domains
- Analyzing Campus LAN Topologies
- Analyzing LAN Physical Standard Choices
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- Review All the Key Topics

Chapter 12: Implementing Ethernet Virtual LANs

- Virtual LAN Concepts
- VLAN and VLAN Trunking Configuration and Verification
- Lesson Summary
- Review All the Key Topics
- Command References

Chapter 13: Troubleshooting Ethernet LANs

- Perspectives on Applying Troubleshooting Methodologies
- Analyzing Switch Interface Status and Statistics

- Predicting Where Switches Will Forward Frames
- Analyzing Port Security Operations on an Interface
- Analyzing VLANs and VLAN Trunks
- Lesson Summary
- Review All the Key Topics
- Command References

Chapter 14: Perspectives on IPv4 Subnetting

- Introduction to Subnetting
- Analyze Subnetting and Addressing Needs
- Make Design Choices
- Plan the Implementation
- Lesson Summary
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Chapter 15: Analyzing Classful IPv4 Networks

- Classful Network Concepts
- Practice with Classful Networks
- Lesson Summary

- Review All the Key Topics
- Answers to Earlier Practice Problems
- Answers to Practice Problem 7 (from Table 14-4)
- Answers to Practice Problem 8 (from Table 14-4)
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Chapter 16: Analyzing Subnet Masks

- Subnet Mask Conversion
- Identifying Subnet Design Choices Using Masks
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- Review All the Key Topics
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Chapter 17: Analyzing Existing Subnets

- Defining a Subnet
- Analyzing Existing Subnets: Binary
- Analyzing Existing Subnets: Decimal
- Practice Analyzing Existing Subnets

- Lesson Summary
- Review All the Key Topics
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Chapter 18: Operating Cisco Routers

- Installing Cisco Routers
- Enabling IPv4 Support on Cisco Router Interfaces
- Lesson Summary
- Review All the Key Topics
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Chapter 19: Configuring IPv4 Addresses and Static Routes

- IP Routing
- Configuring IP Addresses and Connected Routes
- Configuring Static Routes
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- Review All the Key Topics
- Command References

Chapter 20: Learning IPv4 Routes with RIPv2

- RIP and Routing Protocol Concepts
- Core RIPv2 Configuration and Verification
- Optional RIPv2 Configuration and Verification
- Troubleshooting RIPv2
- Lesson Summary
- Review All the Key Topics
- Command References

Chapter 21: DHCP and IP Networking on Hosts

- Implementing and Troubleshooting DHCP
- Verifying Host IPv4 Settings
- IPv4 Address Types
- Lesson Summary
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Chapter 22: Subnet Design

- Choosing the Mask(s) to Meet Requirements
- Finding All Subnet IDs
- Lesson Summary
- Review All the Key Topics
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- Answers to Practice Choosing Subnet Masks
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Chapter 23: Variable-Length Subnet Masks

- VLSM Concepts and Configuration
- Finding VLSM Overlaps
- Adding a New Subnet to an Existing VLSM Design
- Lesson Summary
- Review All the Key Topics
- Additional Practice for This Lesson's Processes
- Answers to Practice Finding VLSM Overlaps

Chapter 24: IPv4 Troubleshooting Tools

- Problem Isolation Using the ping Command

- Problem Isolation Using the traceroute Command
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Chapter 25: Troubleshooting IPv4 Routing

- Problems Between the Host and the Default Router
- Problems with Routing Packets Between Routers
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- Review All the Key Topics

Chapter 26: Basic IPv4 Access Control Lists

- IPv4 Access Control List Basics
- Standard Numbered IPv4 ACLs
- Practice Applying Standard IP ACLs
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- Review All the Key Topics
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Chapter 27: Advanced IPv4 Access Control Lists

- Extended Numbered IP Access Control Lists
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- Troubleshooting with IPv4 ACLs
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Chapter 28: Network Address Translation

- Perspectives on IPv4 Address Scalability
- Network Address Translation Concepts
- NAT Configuration and Troubleshooting
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Chapter 29: Fundamentals of IP Version 6

- Introduction to IPv6
- IPv6 Addressing Formats and Conventions
- Lesson Summary
- Review All the Key Topics
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Chapter 30: IPv6 Addressing and Subnetting

- Global Unicast Addressing Concepts
- Unique Local Unicast Addresses
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- Review All the Key Topics

Chapter 31: Implementing IPv6 Addressing on Routers

- Implementing Unicast IPv6 Addresses on Routers
- Special Addresses Used by Routers
- Lesson Summary

- Review All the Key Topics
- Additional Practice for This Lesson's Processes
- Command References
- Answers to Earlier Practice Problems

Chapter 32: Implementing IPv6 Addressing on Hosts

- The Neighbor Discovery Protocol
- Dynamic Configuration of Host IPv6 Settings
- Troubleshooting IPv6 Addressing
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Chapter 33: Implementing IPv6 Routing

- Connected and Local IPv6 Routes
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Chapter 34: Device Management Protocols

- System Message Logging (Syslog)
- Network Time Protocol (NTP)
- Analyzing Topology Using CDP and LLDP
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Chapter 35: Device Security Features

- Securing IOS Passwords
- Cisco Device Hardening
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Chapter 36: Managing IOS Files

- Managing Cisco IOS Images and Upgrades

- Password Recovery
- Managing Configuration Files
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Chapter 37: IOS License Management

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Chapter 43: Appendix E: Practice for Lesson 21: Subnet Design

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Chapter 44: Appendix F: Practice for Lesson 22: Variable-Length Subnet Masks

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Chapter 45: Appendix G: Practice for Lesson 25: Basic IPv4 Access Control Lists

- Practice Problems
- Practice Building access-list Commands
- Reverse Engineering from ACL to Address Range
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- Answers: Practice Building access-list Commands
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Chapter 46: Appendix H: Practice for Lesson 28: Fundamentals of IP Version 6

- Address Abbreviating and Expanding Problems
- Calculating the IPv6 Prefix Problems
- Answers to Address Abbreviating and Expanding Problems
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Chapter 47: Appendix I: Practice for Lesson 30: Implementing IPv6 Addressing on Routers

- EUI-64 and Solicited Node Multicast Problems
- Answers to EUI-64 and Solicited Node Multicast Problems

Chapter 48: Appendix J: Classless Inter-domain Routing

- Using CIDR Classless Prefixes
- Understanding Subnetted CIDR Classless Prefixes
- Challenges with CIDR Terminology and Processes
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Chapter 49: Appendix K: Route Summarization

- Manual Route Summarization Concepts
- Choosing the Best Summary Routes
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Chapter 50: Appendix L: Implementing Point-to-Point WANs

- Leased Line WANs with HDLC
- Leased Line WANs with PPP
- Troubleshooting Serial Links
- Command References

Chapter 51: Appendix M: Topics from Previous Editions

- Internal Processing on Cisco Switches
- IOS Version and Other Reload Facts
- Secondary IP Addressing
- Internal Processing on Cisco Routers
- Potential Routing Performance Issues
- Cisco Router Fast Switching and CEF
- OSPF Configuration
- OSPF Single-Area Configuration

- Configuring the OSPF Router ID
- Miscellaneous OSPF Configuration Settings
- Name Resolution with DNS
- IOS Reorders ACEs
- IOS Renumbers ACL Line Numbers, by 10s, at Reload
- NAT Overload (PAT) on Consumer Routers
- Dynamic Routes with OSPFv3
- Comparing OSPF for IPv4 and IPv6
- Verifying OSPFv3 Status and Routes

Chapter 52: Appendix N: Exam Topics Cross Reference

- ICND1 100-105 Exam Topic Order
- Book Lessons, with Exam Topics Covered in Each
- CCNA R&S 200-125 Exam Topics

Chapter 53: Introduction

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Chapter 54: Your Study Plan

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- Five Study Plan Steps
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Chapter 55: Implementing Ethernet Virtual LANs

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- VLAN and VLAN Trunking Configuration and Verification
- Lesson Summary
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Chapter 56: Spanning Tree Protocol Concepts

- Spanning Tree Protocol (IEEE 802.1D)
- Rapid STP (IEEE 802.1w) Concepts
- Optional STP Features
- Lesson Summary
- Review All the Key Topics

Chapter 57: Spanning Tree Protocol Implementation

- Implementing STP
- Implementing Optional STP Features
- Implementing RSTP
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- Command References

Chapter 58: LAN Troubleshooting

- Troubleshooting STP
- Troubleshooting Layer 2 EtherChannel

- Analyzing the Switch Data Plane Forwarding
- Troubleshooting VLANs and VLAN Trunks
- Lesson Summary
- Review All the Key Topics
- Command References

Chapter 59: VLAN Trunking Protocol

- VLAN Trunking Protocol (VTP) Concepts
- VTP Configuration and Verification
- VTP Troubleshooting
- Lesson Summary
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Chapter 60: Miscellaneous LAN Topics

- Securing Access with IEEE 802.1x
- AAA Authentication
- DHCP Snooping
- Switch Stacking and Chassis Aggregation

- Lesson Summary
- Review All the Key Topics

Chapter 61: Understanding OSPF Concepts

- Comparing Dynamic Routing Protocol Features
- OSPF Concepts and Operation
- OSPF Area Design
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Chapter 62: Implementing OSPF for IPv4

- Implementing Single-Area OSPFv2
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- Additional OSPF Features
- Lesson Summary
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Chapter 63: Understanding EIGRP Concepts

- EIGRP and Distance Vector Routing Protocols
- EIGRP Concepts and Operation
- Lesson Summary
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Chapter 64: Implementing EIGRP for IPv4

- Core EIGRP Configuration and Verification
- EIGRP Metrics, Successors, and Feasible Successors
- Other EIGRP Configuration Settings
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Chapter 65: Troubleshooting IPv4 Routing Protocols

- Perspectives on Troubleshooting Routing Protocol Problems
- Interfaces Enabled with a Routing Protocol
- Neighbor Relationships
- Lesson Summary

- Review All the Key Topics
- Command References

Chapter 66: Implementing External BGP

- BGP Concepts
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Chapter 67: Implementing Point-to-Point WANs

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- Leased-Line WANs with PPP
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- Lesson Summary
- Review All the Key Topics
- Command References

Chapter 68: Private WANs with Ethernet and MPLS

- Metro Ethernet
- Multiprotocol Label Switching (MPLS)
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- Review All the Key Topics

Chapter 69: Private WANs with Internet VPN

- Internet Access and Internet VPN Fundamentals
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Chapter 70: Basic IPv4 Access Control Lists

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Chapter 71: Advanced IPv4 Access Control Lists

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- Troubleshooting with IPv4 ACLs
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Chapter 72: Quality of Service (QoS)

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- Classification and Marking
- Congestion Management (Queuing)
- Shaping and Policing

- Congestion Avoidance
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Chapter 73: IPv4 Routing in the LAN

- VLAN Routing with Router 802.1Q Trunks
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Chapter 74: Implementing HSRP for First-Hop Routing

- FHRP and HSRP Concepts
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Chapter 75: Troubleshooting IPv4 Routing

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Chapter 76: IPv6 Routing Operation and Troubleshooting

- Normal IPv6 Operation
- Troubleshooting IPv6
- Lesson Summary
- Review All the Key Topics
- Command References

Chapter 77: Implementing OSPF for IPv6

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- OSPFv3 Configuration
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- Review All the Key Topics
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Chapter 78: Implementing EIGRP for IPv6

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- EIGRP for IPv6 Verification and Troubleshooting
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Chapter 79: IPv6 Access Control Lists

- IPv6 Access Control List Basics
- Configuring Standard IPv6 ACLs
- Configuring Extended IPv6 ACLs
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Chapter 80: Network Management

- Simple Network Management Protocol
- IP Service Level Agreement
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- Review All the Key Topics
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Chapter 81: Cloud Computing

- Cloud Computing Concepts
- WAN Traffic Paths to Reach Cloud Services
- Virtual Network Functions and Services
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Chapter 82: SDN and Network Programmability

- SDN and Network Programmability Basics

- Examples of Network Programmability and SDN
- Cisco APIC-EM Path Trace ACL Analysis Application
- Lesson Summary
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Chapter 85: Appendix B: CCNA ICND2 200-105 Exam Updates

- Always Get the Latest at the Book's Product Page
- Technical Content
- The APIC-EM Path Trace ACL Analysis Tool

Chapter 86: Appendix C: Practice for Chapter 16: Basic IPv4 Access Control Lists

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- Answers to Earlier Practice Problems

Chapter 87: Appendix D: Learning IPv4 Routes with RIPv2

- RIP and Routing Protocol Concepts
- Core RIPv2 Configuration and Verification
- Optional RIPv2 Configuration and Verification
- Troubleshooting RIPv2
- Review All the Key Topics
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Chapter 88: Appendix E: Understanding Frame Relay Concepts

- Frame Relay Overview
- Frame Relay Addressing
- Network Layer Addressing with Frame Relay
- Review All the Key Topics

Chapter 89: Appendix F: Implementing Frame Relay

- Frame Relay Configuration and Verification
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- Command Reference to Check Your Memory

Chapter 90: Appendix G: IPv4 Troubleshooting Tools

- “Do I Know This Already?” Quiz
- Problem Isolation Using the ping Command
- Problem Isolation Using the traceroute Command
- Telnet and SSH
- Review All the Key Topics

Chapter 91: Appendix H: Topics from Previous Editions

- Dial Access with Modems and ISDN
- Gateway Load Balancing Protocol (GLBP)
- HSRP Tracking
- (OSPFv2) Link-State Advertisements
- (OSPFv3) Link-State Advertisements
- IPv6 Routing Protocols as Discussed in This Book

Chapter 92: Appendix I: Exam Topic Cross Reference

- ICND2 200-105 Exam Topics in Numeric Order
- Mapping of Book Lessons to ICND2 200-105 Exam Topics

- CCNA R&S Exam Topics with ICND2 Subset Noted

Videos and How To

uCertify course includes videos to help understand concepts. It also includes How Tos that help learners in accomplishing certain tasks.

317

VIDEOS

05:17

HOURS

11. Practice Test

Here's what you get

111

PRE-ASSESSMENTS
QUESTIONS

2

FULL LENGTH TESTS

120

POST-ASSESSMENTS
QUESTIONS

Features

Each question comes with detailed remediation explaining not only why an answer option is correct but also why it is incorrect.

Unlimited Practice

Each test can be taken unlimited number of times until the learner feels they are prepared. Learner can review the test and read detailed remediation. Detailed test history is also available.

Each test set comes with learn, test and review modes. In learn mode, learners will attempt a question and will get immediate feedback and complete remediation as they move on to the next question. In test mode, learners can take a timed test simulating the actual exam conditions. In review mode, learners can read through one item at a time without attempting it.

12. Post-Assessment

After completion of the uCertify course Post-Assessments are given to students and often used in conjunction with a Pre-Assessment to measure their achievement and the effectiveness of the exam.

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