

Cisco 300-420 Exam Prep 2026

Cisco 300-420 ENARSI 2026. Routing, switching, and automation with hands-on labs.

[IT Certifications](#) Instructor: Jason Miller • 5 sections • 45 lessons • 15.25h total

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About this course

Preparing for the Cisco 300-420 ENARSI exam can feel overwhelming with the vast amount of topics. This course cuts through the noise and gives you a focused, practical study plan. We cover the core exam objectives in a way that makes sense for real network engineering.

You will learn techniques for routing, switching, and automation, with hands-on labs and downloadable study guides. We include real case study analysis and problem-solving sessions.

Course curriculum

Foundations and Exam Overview

- **Understanding the 2026 ENARSI Exam Structure (12m)**
Learn the key domains and question types for the 300-420 exam, and how to structure your study plan effectively.
- **Setting Up Your Lab Environment (18m)**
Get a step-by-step guide to building a virtual lab using Cisco Packet Tracer or EVE-NG for hands-on practice.
- **Core Routing and Switching Concepts Review (25m)**
A quick refresher on OSPF, EIGRP, and BGP fundamentals to ensure you're starting from a solid base.
- **Introduction to Network Automation Tools (15m)**
Discover Python and Ansible basics that are essential for the automation section of the exam.
- **Downloading Your Study Guide and Templates (8m)**
Access and organize your downloadable study guide and note-taking templates for efficient learning.
- **Creating a Realistic Study Schedule (10m)**
We'll show you how to build a 6-week study plan that balances theory, labs, and practice tests.
- **Common Exam Pitfalls and How to Avoid Them (14m)**
Learn about common mistakes candidates make and get tips to stay focused and confident.

Core Routing and Switching Deep Dive

- **Advanced OSPF Configuration and Troubleshooting (28m)**
Master OSPF areas, LSA types, and troubleshooting techniques with a real-world case study.
- **EIGRP Classic and Named Mode Configuration (22m)**
Step-by-step lab on configuring EIGRP, including authentication and route summarization.
- **BGP Neighbor Formation and Route Propagation (30m)**
Understand BGP peering, attributes, and path selection through hands-on configuration.
- **Route Redistribution Between Protocols (24m)**
Learn how to safely redistribute routes between OSPF, EIGRP, and BGP with filtering.
- **IPv6 Routing Protocols Implementation (20m)**
Configure OSPFv3 and EIGRP for IPv6 in a lab environment, covering key differences from IPv4.
- **Switching Concepts: VLANs and Trunking (16m)**
A practical guide to VLAN configuration, trunking protocols, and troubleshooting common issues.
- **Spanning Tree Protocol (STP) Optimization (19m)**
Learn to configure and optimize STP, RSTP, and MSTP for loop prevention and redundancy.
- **Layer 3 Switching and SVI Configuration (21m)**
Build a lab to implement inter-VLAN routing using switch virtual interfaces.
- **Problem-Solving Session: Routing Loop Scenario (26m)**
Analyze and solve a complex routing loop scenario, applying concepts from previous lessons.

Advanced Network Services and Security

- **Implementing First-Hop Redundancy Protocols (17m)**
Configure HSRP, VRRP, and GLBP with real-case analysis for high availability.
- **IPsec VPN Configuration and Troubleshooting (23m)**
Step-by-step guide to setting up site-to-site IPsec VPNs and resolving common errors.
- **MPLS Fundamentals and LDP Configuration (29m)**
Learn MPLS basics, label distribution, and how to configure LDP in a lab.
- **QoS Implementation for Voice and Video (25m)**
Apply Quality of Service policies to prioritize traffic, with downloadable templates.
- **Network Security: ACLs and Zone-Based Firewalls (20m)**
Configure access control lists and zone-based firewalls to secure your network.
- **Wireless Security and Roaming Concepts (15m)**
Cover WPA3, RADIUS, and mobility basics for the wireless section of the exam.
- **Troubleshooting Security and VPN Issues (32m)**
A problem-solving session focused on diagnosing and fixing security and VPN problems.

Network Automation and Programmability

- **Python Scripting for Network Tasks (27m)**
Write and run Python scripts to automate common network configuration tasks.
- **Ansible Playbooks for Device Management (24m)**
Create Ansible playbooks to manage multiple devices, with a real-world deployment case.
- **API Integration with RESTCONF and NETCONF (22m)**
Learn to use RESTCONF and NETCONF APIs to interact with network devices programmatically.
- **Data Models and YANG for Network Automation (18m)**
Understand YANG models and how they structure data for automation tools.
- **Git and Version Control for Network Configs (16m)**
Implement Git to track changes in your network configurations and collaborate.
- **Automating BGP with Python (21m)**
Step-by-step guide to using Python to automate BGP peer configuration and monitoring.
- **Troubleshooting Automation Scripts (19m)**
Common errors in automation scripts and how to debug them efficiently.
- **Case Study: Automating a Branch Office Rollout (35m)**
Analyze a full case study where automation reduced deployment time by 50%.
- **Problem-Solving Session: API Failure Scenarios (28m)**
Diagnose and fix API connectivity and data parsing issues in a lab.

Exam Practice and Final Preparation

- **Practice Exam 1: Full Scenario-Based Questions (40m)**
Take a timed practice exam with questions mirroring the 300-420 format, followed by a detailed review.
- **Practice Exam 2: Focus on Routing and Switching (38m)**
A second practice test concentrated on the core routing and switching domains.

- **Practice Exam 3: Automation and Security Focus (36m)**
Test your knowledge on automation, security, and advanced services with this practice exam.
- **Reviewing Your Performance and Weak Areas (20m)**
Learn how to analyze your practice test results and create a targeted review plan.
- **Final Exam Strategy and Time Management (15m)**
Get strategies for pacing yourself during the real exam and managing question difficulty.
- **Last-Minute Review with Flashcards and Notes (12m)**
Use downloadable flashcards and your study notes for a quick final review session.
- **Booking Your Exam and What to Expect on Test Day (10m)**
A guide to scheduling your exam, the check-in process, and what to bring.
- **Post-Exam: Next Steps and Certification Maintenance (14m)**
What to do after passing, including continuing education and recertification options.
- **Real-World Application: From Exam to Job (22m)**
How to translate your exam knowledge into real job tasks and career advancement.
- **Q&A and Community Resources (11m)**
Access our community forum for ongoing support and additional resources.
- **Course Wrap-Up and Motivation (8m)**
A final message to keep you motivated as you embark on your certification journey.
- **Bonus: Downloadable 2026 Exam Cheat Sheet (5m)**
Get a one-page cheat sheet summarizing key commands and concepts for quick reference.
- **Bonus: Sample Job Interview Questions (9m)**
Prepare for job interviews with questions that test your ENARSI knowledge.

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