

Cisco 300-410 ENARSI Exam Prep 2026

Prepare for Cisco 300-410 ENARSI. Advanced routing, MPLS, DMVPN, BGP, and troubleshooting with hands-on labs.

[IT Certifications](#) Instructor: Jason Miller • 5 sections • 51 lessons • 18.25h total

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About this course

Preparing for the Cisco 300-410 ENARSI exam can feel overwhelming with the depth of advanced routing, VPN, and troubleshooting topics. This course breaks down the 2026 exam objectives into manageable lessons so you can practice real scenarios, not just memorize facts.

We will walk you through configurations for MPLS, DMVPN, and BGP, plus in-depth troubleshooting sessions. You will get hands-on with downloadable lab guides, real case study analysis, and practice questions that mirror the exam.

Course curriculum

Foundations and Exam Overview

- **Understanding the 300-410 ENARSI Exam Blueprint (12m)**
Get a clear breakdown of the 2026 exam domains, question types, and scoring to focus your study time effectively.
- **Setting Up Your Lab Environment with EVE-NG (22m)**
Step-by-step guide to building a virtual lab using EVE-NG, including Cisco IOS images and network topology basics.
- **Key Routing Protocol Review: OSPF and EIGRP (18m)**
Quick refresher on advanced OSPF areas and EIGRP named mode to ensure a solid base before diving deeper.
- **CLI Troubleshooting Tools You Need to Know (15m)**
Learn how to use debug, traceroute, and show commands effectively without crashing your network.
- **Common Exam Pitfalls and How to Avoid Them (10m)**
Real student experiences on tricky scenarios like misconfigured redistribution or IPv6 oversight.
- **Downloadable Study Planner Template (8m)**
A practical Excel template to organize your daily labs, review sessions, and practice exam scores.
- **Introduction to Network Automation Basics (14m)**
How Python and Ansible fit into ENARSI topics, with simple scripts to automate verification tasks.
- **Pre-Course Assessment: Test Your Starting Point (9m)**
A short quiz to identify your strengths in routing and areas needing more focus.

Advanced Routing Protocols

- **Configuring OSPFv3 for IPv6 Environments (25m)**
Hands-on lab to set up OSPFv3, including virtual links and authentication for secure routing.
- **EIGRP for IPv6: Step-by-Step Deployment (20m)**
Walkthrough of EIGRP named mode with IPv6, focusing on stub configurations and route summarization.
- **BGP fundamentals: iBGP and eBGP Setup (28m)**
Real case study analysis on building BGP peering sessions and basic path selection.
- **BGP Path Manipulation: Local Preference and AS-Path (32m)**
Practical scenarios to influence BGP traffic flow using attributes, with downloadable configs.
- **Route Redistribution Between Protocols (24m)**
Problem-solving session on avoiding loops and metric issues when redistributing OSPF, EIGRP, and BGP.
- **Route Filtering with Distribute Lists and Prefix Lists (19m)**
Learn how to control route advertisements using ACLs and prefix-lists in multi-protocol environments.
- **Troubleshooting BGP Neighbor Relationships (26m)**
Step-by-step guide to diagnose common BGP issues like ACL blocks or AS mismatches.

- **Advanced OSPF: LSA Types and Areas Deep Dive (30m)**
In-depth look at OSPF LSAs with lab examples to optimize area designs.
- **EIGRP Optimization: Load Balancing and Stuck-in-Active (21m)**
How to fix EIGRP stuck routes and configure variance for unequal cost load balancing.
- **BGP Communities for Traffic Engineering (23m)**
Using communities to tag and manipulate routes across autonomous systems.

VPN Technologies and Security

- **MPLS Layer 3 VPN Configuration Basics (27m)**
Build a simple MPLS VPN backbone with VRFs and MP-BGP in a lab environment.
- **DMVPN Phase 2 Setup and Hub-Spoke Topology (29m)**
Real-world DMVPN deployment for branch connectivity, including NHRP and mGRE.
- **IPsec VPN Troubleshooting: From IKE to ESP (25m)**
Problem-solving session on IPsec Phase 1 and 2 failures, with show command walkthroughs.
- **GRE over IPsec for Secure Tunnels (18m)**
Step-by-step guide to combining GRE with IPsec for dynamic routing over VPNs.
- **Site-to-Site VPN with Dynamic IPs (22m)**
Configuring VPNs when one side has changing public IPs, using FQDN and pre-shared keys.
- **MPLS Troubleshooting: LDP and Label Issues (26m)**
Hands-on analysis of MPLS label distribution problems and how to resolve them.
- **DMVPN Scaling: NHRP Resolution and Routing (31m)**
Optimizing DMVPN for larger deployments with EIGRP or OSPF over the tunnel.
- **Introduction to SD-WAN Concepts for ENARSI (15m)**
Brief overview of SD-WAN as it relates to advanced routing, with migration tips.
- **VPN Security Best Practices for 2026 (12m)**
Key updates on crypto algorithms and certificate management to stay compliant.

Infrastructure Services and Automation

- **Configuring SNMPv3 for Secure Monitoring (20m)**
Step-by-step setup of SNMPv3 with views, groups, and users for ENARSI monitoring tasks.
- **NetFlow Implementation and Export (24m)**
How to enable NetFlow on interfaces and analyze traffic for troubleshooting.
- **NTP Authentication and Stratum Setup (16m)**
Real case study on syncing time across routers securely to prevent log issues.
- **DHCPv6 and IPv6 First-Hop Security (22m)**
Configuring DHCPv6 servers and features like RA Guard to protect IPv6 networks.
- **IP SLA for Network Performance Monitoring (19m)**
Using IP SLA to measure latency and jitter, with EEM applets for auto-responses.
- **EEM Scripts: Automating Routine Tasks (28m)**
Write custom EEM scripts to handle events like interface flaps, with downloadable examples.
- **Cisco DNA Center Integration Basics (14m)**
Overview of how automation tools tie into ENARSI, focusing on API calls for routing verification.

- **YANG Models for Model-Driven Telemetry (25m)**
Introduction to YANG and setting up telemetry streams for real-time monitoring.
- **Ansible Playbooks for Router Config Backup (30m)**
Practical session on using Ansible to automate backups and compliance checks.
- **Troubleshooting Automation Failures (21m)**
Common issues in scripts and APIs, with debugging techniques for ENARSI scenarios.
- **Python Basics for Network Engineers (17m)**
Quick-start guide to using Python with Netmiko for SSH automation in labs.
- **Integrating REST APIs with Routing Devices (23m)**
How to pull routing tables via APIs, including error handling examples.

Troubleshooting and Exam Mastery

- **Systematic Troubleshooting Methodology (15m)**
Layered approach to diagnosing issues, from physical to application layer.
- **Troubleshooting OSPF Neighbor Issues (26m)**
Real lab scenarios fixing MTU mismatches, area mismatches, and dead timers.
- **EIGRP Troubleshooting: K-Values and SIA Routes (22m)**
Deep dive into why EIGRP fails and how to recover from stuck-in-active states.
- **BGP Troubleshooting: Route Advertisement Problems (28m)**
Case studies on next-hop issues, aggregation, and missing MED attributes.
- **Redistribution Troubleshooting: Loops and Metrics (25m)**
Step-by-step analysis of redistribution errors, with route-map fixes.
- **MPLS and VPN Troubleshooting Scenarios (32m)**
Hands-on labs resolving PE-CE connectivity problems and label stack issues.
- **DMVPN Troubleshooting: Phase 3 Challenges (27m)**
Fixing spoke-to-spoke routing and NHRP registration failures.
- **IPv6 Routing Troubleshooting (20m)**
Common IPv6 pitfalls like ND issues and address configuration errors.
- **Practice Exam: Full ENARSI Mock Test (35m)**
Timed practice exam with detailed explanations for each question.
- **Reviewing Your Practice Exam Results (18m)**
How to analyze weaknesses and create targeted lab plans based on scores.
- **Time Management During the Exam (12m)**
Strategies for pacing, skipping, and flagging questions to maximize your score.
- **Final Pre-Exam Checklist (10m)**
Downloadable list of topics, lab commands, and mindset tips for exam day.

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