

Cisco 300-515 SPVI Exam Preparation

Cisco 300-515 SPVI. MPLS, BGP, and VPN configuration and troubleshooting for service providers.

[IT Certifications](#) Instructor: Brian Mitchell • 5 sections • 47 lessons • 14.00h total

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About this course

This course is for network engineers and IT professionals who want to pass the Cisco 300-515 SPVI exam. We will break down the exam objectives into manageable lessons, focusing on the practical skills you need for service provider VPN and infrastructure. You will learn how to configure and troubleshoot MPLS, BGP, and VPN services in real scenarios.

We cover each exam topic with step-by-step guides, downloadable configuration templates, and real case study analysis. The course includes video lessons, practical labs, and problem-solving sessions.

Course curriculum

Foundations and Exam Overview

- **Understanding the 300-515 SPVI Exam Structure (12m)**
Learn the exam domains, question types, and scoring to plan your study strategy effectively.
- **Setting Up Your Lab Environment (18m)**
Step-by-step guide to configuring a virtual lab using Cisco Modeling Labs or GNS3 for hands-on practice.
- **Key Service Provider VPN Concepts (8m)**
Get a clear overview of MPLS, BGP, and VPN fundamentals that form the basis of the exam.
- **Downloadable Study Plan Template (5m)**
A practical template to organize your study schedule and track progress through the exam objectives.
- **Common Exam Pitfalls to Avoid (15m)**
Real-world insights on mistakes candidates make and how to sidestep them during your preparation.
- **Using Exam Dumps Effectively (10m)**
How to integrate practice questions into your study without relying solely on memorization.
- **Reviewing the Official Blueprint (7m)**
We'll walk through Cisco's official exam blueprint to ensure you cover all required topics.

Core Service Provider Technologies

- **MPLS Fundamentals for Service Providers (22m)**
Deep dive into MPLS labels, LDP, and how they enable scalable VPN services.
- **Configuring MPLS LDP on Routers (25m)**
Hands-on lab to set up MPLS LDP and verify label distribution in a service provider network.
- **BGP in Service Provider Environments (19m)**
Learn BGP attributes and policies specific to service provider deployments.
- **BGP Configuration for VPNv4 (28m)**
Step-by-step guide to configuring BGP for VPNv4 address family with downloadable configs.
- **Troubleshooting BGP Peering Issues (16m)**
Problem-solving session on common BGP peering failures and resolution techniques.
- **Layer 3 VPN (L3VPN) Architecture (21m)**
Understand the components of L3VPN and how they work together in a service provider network.
- **Configuring L3VPN on Cisco IOS (30m)**
Real case study analysis to configure and verify L3VPN services end-to-end.
- **Layer 2 VPN (L2VPN) Services (17m)**
Explore VPLS and VPWS concepts and their applications in service provider networks.
- **Integrating MPLS with IPv6 (14m)**
Learn how to enable MPLS services in dual-stack environments.

Advanced VPN and Infrastructure Topics

- **MPLS Traffic Engineering (TE) (24m)**
Step-by-step guide to configuring MPLS TE tunnels and understanding RSVP-TE.
- **QoS in Service Provider Networks (20m)**
Practical approach to implementing QoS policies for VPN services.
- **Multicast VPN (MVPN) Configuration (26m)**
Real-world case study on setting up MVPN for multicast over MPLS.
- **Securing MPLS Networks (18m)**
Downloadable templates for implementing control plane and data plane security.
- **BGP Route Reflectors in SP Networks (15m)**
Learn best practices for scaling BGP with route reflectors in large networks.
- **Inter-Area MPLS Solutions (22m)**
Problem-solving session on connecting multiple MPLS domains.
- **MPLS OAM and Troubleshooting Tools (12m)**
Hands-on lab using MPLS OAM to verify and troubleshoot VPN services.
- **Exam-Focused Configuration Scenarios (32m)**
Practice with typical exam-style configuration tasks and get feedback.

Real-World Implementation and Scenarios

- **Designing a Service Provider VPN Network (28m)**
Step-by-step guide to planning and documenting a complete VPN deployment.
- **Migrating from Legacy to MPLS (25m)**
Real case study analysis of a migration project with lessons learned.
- **Scaling VPN Services for Enterprise Customers (22m)**
Practical strategies for handling large-scale VPN deployments.
- **Troubleshooting Complex VPN Issues (30m)**
Problem-solving session with real-world VPN failure scenarios and solutions.
- **Automating VPN Deployments with Python (19m)**
Downloadable scripts to automate common VPN configuration tasks.
- **Monitoring VPN Performance (16m)**
Learn to use SNMP and NetFlow for monitoring VPN service health.
- **Integrating with Cloud Services (21m)**
Real-world case study on connecting MPLS VPNs to AWS and Azure.
- **Disaster Recovery for VPN Services (18m)**
Step-by-step guide to designing resilient VPN architectures.
- **Performance Optimization Techniques (23m)**
Practical tips for optimizing VPN performance under load.
- **Exam Simulation: Full Configuration Lab (35m)**
Complete lab that mirrors exam tasks with downloadable solution files.

Exam Readiness and Next Steps

- **Practice Exam Strategy (15m)**
How to use practice exams and dumps effectively to identify weak areas.
- **Reviewing Key Configuration Commands (12m)**
Flashcard-style review of essential commands for the exam.
- **Time Management During the Exam (10m)**
Practical techniques to pace yourself and avoid running out of time.
- **Troubleshooting Exam Questions (20m)**
Problem-solving session on how to approach and solve exam troubleshooting questions.
- **Final Exam Day Checklist (8m)**
Downloadable checklist to ensure you're prepared for exam day.
- **Post-Exam: What to Do Next (11m)**
Guidance on next steps after passing the exam, including career paths.
- **Common Exam Questions Walkthrough (25m)**
Real case study analysis of frequently tested exam questions and answers.
- **Building a Study Group (7m)**
Tips for forming or joining study groups to reinforce learning.
- **Using Lab Time Efficiently (14m)**
Step-by-step guide to maximizing your hands-on practice sessions.
- **Exam Dumps: Ethical Use and Limitations (13m)**
Honest discussion on how to use exam dumps responsibly in your prep.
- **Final Review and Confidence Building (17m)**
Practical exercises to boost confidence before the exam.
- **Resources for Ongoing Learning (9m)**
Curated list of books, forums, and communities for continued growth.
- **Creating Your Personalized Study Plan (12m)**
Downloadable template to adapt the course content to your schedule and needs.

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