



CCNP & CCIE Enterprise: Master ENCOR 350-401 v1.1 Training Course

5 – 16 September 2027
Muscat



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Course Overview

The CCNP & CCIE Enterprise: Master ENCOR 350-401 v1.1 Training Course is an advanced, hands-on training program designed to help IT professionals develop expertise in Cisco Enterprise Networking. This comprehensive course covers CCNP ENCOR 350-401 Training, CCIE Enterprise Course, and Advanced Cisco Routing & Switching, preparing learners for the ENCOR 350-401 Exam with in-depth theoretical concepts and hands-on Cisco labs.

Participants will explore Cisco Network Security, SD-WAN Training Cisco, and Network Automation, equipping them with the knowledge to design, implement, and troubleshoot complex network infrastructures. Key topics include OSPF Configuration Guide, BGP Troubleshooting Tips, VLAN Configuration Cisco, CCIE Practical Labs, and QoS Configuration Cisco.

Target Audience

- Network Engineers and Administrators
- Enterprise Network Engineers
- IT Security Professionals
- System Administrators
- IT Support Engineers
- Infrastructure Architects
- Network Analysts
- IT Consultants

Targeted Organizational Departments

- IT Infrastructure & Networking
- Security Operations
- Enterprise Network Administration
- Cloud & Data Center Networking
- Telecommunications Engineering
- Managed Services & IT Support

Targeted Industries

- Telecommunications & ISP Providers
- Financial Services & Banking
- Healthcare IT Infrastructure
- Government & Defense Networks
- Enterprise IT & Cloud Services
- E-commerce & Retail Networks
- Education & Research Institutions
- Media & Entertainment Networking

Course Offerings

By the end of this course, participants will be able to:

- Successfully prepare for the ENCOR 350-401 Exam
- Implement and manage Cisco Enterprise Networking solutions
- Configure OSPF, BGP, and EIGRP for enterprise environments
- Deploy Cisco SD-WAN solutions for advanced network connectivity
- Secure enterprise networks using Cisco Network Security best practices
- Apply QoS Configuration Cisco for network optimization
- Configure and troubleshoot Cisco VPN Solutions, GRE Tunnels, and ACLs
- Manage Cisco Network Monitoring using SNMP, Syslog, and NetFlow

Training Methodology

This course utilizes a blended learning approach, combining:

- Instructor-led interactive sessions with real-world case studies
- Scenario-based troubleshooting exercises in OSPF, BGP, VLAN, and STP
- Group discussions and Q&A sessions to clarify complex concepts
- Step-by-step configuration guides for real-world network deployments

Course Toolbox

Participants will receive:

- Cisco ENCOR 350-401 v1.1 Study Guide
- Hands-on lab exercises for CCNP Routing & Switching Labs
- OSPF Configuration Guide and BGP Troubleshooting Tips
- Cisco VPN Setup Guide with real-world implementation steps
- Access to SD-WAN Training Cisco resources
- Cisco REST API Security reference materials
- Enterprise Network Architecture Cisco frameworks
- Interactive case studies & problem-solving exercises



Course Agenda

Day 1: Introduction & Network Fundamentals

- **Topic 1:** CCNP-01 Introduction
- **Topic 2:** CCNP-GNS3 Installation
- **Topic 3:** CCNP-EVE ng Overview
- **Topic 4:** ARP with Lab
- **Topic 5:** ARP with Switch
- **Topic 6:** MAC Address with Lab
- **Reflection & Review:** Key learnings from Day 1

Day 2: VLANs & Trunking Protocols

- **Topic 1:** VLAN Configuration
- **Topic 2:** CEF Introduction
- **Topic 3:** Basic Lab for Trunking Protocol
- **Topic 4:** DTP Theory
- **Topic 5:** DTP Lab in GNS3
- **Topic 6:** Troubleshooting VLAN Issues
- **Reflection & Review:** Practical VLAN Applications

Day 3: Spanning Tree Protocol STP & Security

- **Topic 1:** STP Part 1 - Fundamentals
- **Topic 2:** STP Part 2 - Advanced Features
- **Topic 3:** STP Part 3 - Optimization Techniques
- **Topic 4:** STP Part 4 - Troubleshooting Labs
- **Topic 5:** Mini Project for STP Security
- **Topic 6:** MST Lab with Theory
- **Reflection & Review:** Best Practices in STP



Day 4: EtherChannel & IP Routing Basics

- **Topic 1:** EtherChannel Pagp Lab with Theory
- **Topic 2:** EtherChannel LACP Lab in GNS3
- **Topic 3:** EtherChannel Static Method Lab in EVE ng
- **Topic 4:** L3 EtherChannel Lab in EVE ng
- **Topic 5:** IP Routing Basic Part 1
- **Topic 6:** Floating Static Route
- **Reflection & Review:** Routing Protocol Best Practices

Day 5: OSPF Configuration & Optimization

- **Topic 1:** OSPF Introduction
- **Topic 2:** OSPF Basic Lab in EVE ng
- **Topic 3:** OSPF Router ID & Terminologies
- **Topic 4:** OSPF Neighbor Requirements
- **Topic 5:** OSPF Network Types
- **Topic 6:** OSPF Load Balancing
- **Reflection & Review:** Troubleshooting OSPF

Day 6: BGP Fundamentals & Advanced Features

- **Topic 1:** BGP Introduction & Configuration
- **Topic 2:** IBGP & EBGP Theory with Lab
- **Topic 3:** BGP Neighbor States & Message Types
- **Topic 4:** BGP Timer Lab & Next-Hop Self
- **Topic 5:** BGP Path Selection & Weight Attribute
- **Topic 6:** BGP MED & AS Path Prepending
- **Reflection & Review:** BGP Troubleshooting Techniques

Day 7: Network Security & Firewall Implementation

- **Topic 1:** Network Security Design Theory
- **Topic 2:** ACL Introduction & Standard ACL Lab
- **Topic 3:** Extended ACL with Lab
- **Topic 4:** VLAN ACL Lab in EVE ng
- **Topic 5:** NAT & PAT Configuration
- **Topic 6:** Static & Dynamic NAT Labs
- **Reflection & Review:** Enhancing Network Security



Day 8: SD-WAN, QoS & Network Automation

- **Topic 1:** SD-WAN and SD-Access Fundamentals
- **Topic 2:** QoS Configuration & Best Practices
- **Topic 3:** QoS Policing & Traffic Prioritization
- **Topic 4:** Introduction to Network Automation
- **Topic 5:** Automation with NETCONF & RESTCONF
- **Topic 6:** API Security & Network Programmability
- **Reflection & Review:** Real-World Automation Scenarios

Day 9: Wireless Networking & Monitoring

- **Topic 1:** Wireless Fundamentals & AP States
- **Topic 2:** Wireless Client Density & Segmentation
- **Topic 3:** Wireless Security Features & EAPOL
- **Topic 4:** Network Monitoring with SNMP & Syslog
- **Topic 5:** Debugging & Tracing Routes
- **Topic 6:** NetFlow & IPSLA Monitoring Techniques
- **Reflection & Review:** Network Visibility & Optimization

Day 10: VPNs, Final Assessment & Real-World Labs

- **Topic 1:** GRE & IPSec VPN Theory
- **Topic 2:** S2S VPN Configuration in GNS3
- **Topic 3:** Enterprise Network Design & Implementation
- **Topic 4:** Final Troubleshooting Labs
- **Topic 5:** Course Wrap-Up & Certification Guidance
- **Reflection & Review:** Final Q&A and Next Steps

FAQ

- **What specific qualifications or prerequisites are needed for participants before enrolling in the course?**

Participants should have a solid understanding of CCNA-level networking knowledge CCNA 200-301 and a basic grasp of network automation concepts.

- **How long is each day's session, and is there a total number of hours required for the entire course?**

Each day consists of 4-5 hours of interactive training, spanning over ten days with a total of 40-50 hours of hands-on learning and theoretical knowledge.



• **How does this course help with passing the ENCOR 350-401 Exam?**

This course includes extensive troubleshooting scenarios to equip learners with the required skills and confidence to ace the CCNP Enterprise Certification exam.

How This Course is Different from Other CCNP & CCIE Enterprise Courses

This program confidently surpasses generic Cisco courses by offering:

- Cisco Network Security training that delves into ACLs, VPNs, and automation.
- A comprehensive step-by-step guide for Cisco VPN setup, complemented by real-world lab experience.
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- Cisco SD-WAN training with effective deployment exercises.
- Exclusive access to leading Cisco REST API Security materials for advanced automation.
- CCNP Routing & Switching labs utilizing GNS3 and EVE-NG for true-to-life scenarios.
- Enterprise Network Architecture.