



CCNP® Enterprise Implementing Cisco Enterprise Advanced Routing and Services (ENARSI v1.0)

Exam Code : 300-410 ENARSI

Course Objective:

The **CCNP Enterprise - Implementing Cisco Enterprise Advanced Routing and Services (ENARSI) v1.0** course gives you the knowledge you need to install, configure, operate, and troubleshoot an enterprise network. This course covers advanced routing and infrastructure technologies, expanding on the topics covered in the Implementing and Operating Cisco Enterprise Network Core Technologies (ENCOR) v1.0 course.

This course helps prepare you to take the exam, **Implementing Cisco® Enterprise Advanced Routing and Services (300-410 ENARSI)**, which leads to the **new CCNP® Enterprise** and **Cisco Certified Specialist – Enterprise Advanced Infrastructure Implementation** certifications.

Prerequisite:

Before taking this course, you should have:

- General understanding of network fundamentals
- Basic knowledge of how to implement LANs
- General understanding of how to manage network devices
- General understanding of how to secure network devices
- Basic knowledge of network automation

Training Methodology & Materials:

- Integrated learning with practical hands-on sessions, 70% practical / lab-based and 30% theory-based.
- Well-designed lab sessions to enhance further understanding of the courseware.
- Training conducted by Certified Cisco Instructors.
- Training uses Cisco Authorized Course Materials and Lab.

Training Duration:

Full-Time : 5 Weekdays
Time : 9.30am – 5.30pm

Course Fee :

Normal Fee : S\$3399
Regn Fee : S\$50
Exam Fee : S\$489 **

e-Certificate of Attendance :

e-Certificate Of Attendance will be awarded by IT Enabler to participants completing the course achieving minimum 75% attendance.

** Exam fee subject to final confirmation from Cisco at exam regn

All fees subject to prevailing GST.

DETAILED COURSE AND EXAM OUTLINE

CCNP Enterprise - Implementing Cisco Enterprise Advanced Routing and Services (ENARSI) v1.0

1. Layer 3 Technologies (35%)

- 1.1 Troubleshoot administrative distance (all routing protocols)
- 1.2 Troubleshoot route map for any routing protocol (attributes, tagging, filtering)
- 1.3 Troubleshoot loop prevention mechanisms (filtering, tagging, split horizon, route poisoning)
- 1.4 Troubleshoot redistribution between any routing protocols or routing sources
- 1.5 Troubleshoot manual and auto-summarization with any routing protocol
- 1.6 Configure and verify policy-based routing
- 1.7 Configure and verify VRF-Lite
- 1.8 Describe Bidirectional Forwarding Detection

- 1.9 Troubleshoot EIGRP (classic and named mode)
- 1.10 Troubleshoot OSPF (v2/v3)
- 1.11 Troubleshoot BGP (Internal and External)

2. VPN Technologies (20%)

- 2.1 Describe MPLS operations (LSR, LDP, label switching, LSP)
- 2.2 Describe MPLS Layer 3 VPN
- 2.3 Configure and verify DMVPN (single hub)

3. Infrastructure Security (20%)

- 3.1 Troubleshoot device security using IOS AAA (TACACS+, RADIUS, local database)
- 3.2 Troubleshoot router security features
- 3.3 Troubleshoot control plane policing (CoPP) (Telnet, SSH, HTTP(S), SNMP, EIGRP, OSPF, BGP)
- 3.4 Describe IPv6 First Hop security features (RA guard, DHCP guard, binding table, ND inspection/snooping, source guard)

4. Infrastructure Services (25%)

- 4.1 Troubleshoot device management
- 4.2 Troubleshoot SNMP (v2c, v3)
- 4.3 Troubleshoot network problems using logging (local, syslog, debugs, conditional debugs, timestamps)
- 4.4 Troubleshoot IPv4 and IPv6 DHCP (DHCP client, IOS DHCP server, DHCP relay, DHCP options)
- 4.5 Troubleshoot network performance issues using IP SLA (jitter, tracking objects, delay, connectivity)
- 4.6 Troubleshoot NetFlow (v5, v9, flexible NetFlow)
- 4.7 Troubleshoot network problems using Cisco DNA Center assurance (connectivity, monitoring, device health, network health)

CCNP-ENARSI

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