



CISCO TRAINING

# CCNP Enterprise: Implementing Cisco Enterprise Advanced Routing and Services (ENARSI)

*Master advanced Cisco enterprise routing and services. Prepare for your ENARSI 300-410 exam and achieve CCNP Enterprise certification.*

---

DURATION

**2 hours**

LEVEL

**Intermediate**

FORMAT

**Instructor-Led**

---

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

Computer Pride | 1st Floor, ICEA Building, Kenyatta Avenue, Nairobi | [www.computer-pride.co.ke](http://www.computer-pride.co.ke)

## COURSE OVERVIEW

The CCNP Enterprise: Implementing Cisco Enterprise Advanced Routing and Services (ENARSI) course is meticulously designed for network professionals seeking to master the complexities of enterprise-level routing and infrastructure services. This comprehensive program delves deep into advanced routing protocols like OSPF, EIGRP, and BGP, equipping participants with the expertise to implement, troubleshoot, and optimize highly scalable and secure enterprise network solutions. You will gain hands-on experience with intricate redistribution scenarios, advanced path manipulation, and sophisticated filtering techniques essential for maintaining robust network operations.

Beyond core routing, this course extends into critical infrastructure services and security, covering topics such as network management protocols (SNMP, NetFlow, Syslog), IP SLA for performance monitoring, and advanced VPN solutions including DMVPN and IPsec. Furthermore, you will explore device hardening, control plane policing, and an introduction to network automation, empowering you to build resilient, efficient, and secure network infrastructures. The knowledge and skills acquired are directly applicable to the real-world challenges faced by large organizations, preparing you for senior network engineering roles.

Successfully completing this course not only validates your ability to manage and troubleshoot advanced Cisco enterprise networks but also significantly enhances your problem-solving capabilities in high-stakes environments. It is a vital step towards achieving the prestigious CCNP Enterprise certification, signaling to employers your profound expertise in advanced routing, infrastructure services, and network security within a modern enterprise context. This certification distinguishes you as a highly competent professional capable of tackling the most demanding network challenges.

|                  |              |
|------------------|--------------|
| <b>Duration</b>  | 2 hours      |
| <b>Level</b>     | Intermediate |
| <b>Vendor</b>    | Cisco        |
| <b>Exam Code</b> | 300-410      |

## COURSE CURRICULUM

### 01 Module 1: Advanced Routing Protocols

- EIGRP advanced features (load balancing, authentication, stub routing)
- OSPF network types, LSA types, and special areas
- OSPF summarization and filtering techniques
- Route redistribution between routing protocols
- Troubleshooting complex routing protocol issues

### 02 Module 2: BGP Operations and Path Control

- iBGP and eBGP peering strategies
- BGP attributes and path selection process
- BGP route reflectors and confederations
- BGP filtering using prefix-lists and route maps
- BGP security features and best practices

### 03 Module 3: VPN Technologies

- Generic Routing Encapsulation (GRE) tunnels implementation
- Dynamic Multipoint VPN (DMVPN) Phase 2 and Phase 3

- IPsec VPN concepts (IKEv1/v2, transform sets, crypto maps)
- Site-to-site IPsec VPN configuration and troubleshooting
- Cisco TrustSec overview and components

## 04 Module 4: Infrastructure Services and Management

- Network Time Protocol (NTP) for clock synchronization
- Network Management with SNMPv3, Syslog, and NetFlow
- IP Service Level Agreements (SLA) for network performance monitoring
- Authentication, Authorization, and Accounting (AAA) with TACACS+ and RADIUS
- Hot Standby Router Protocol (HSRP) and Virtual Router Redundancy Protocol (VRRP)

## 05 Module 5: Infrastructure Security and Automation

- Router security features (Control Plane Policing, uRPF)
- Advanced Access Control Lists (ACLs) for traffic filtering
- Device hardening best practices for enterprise routers
- Introduction to network programmability and automation concepts
- Understanding REST APIs and data models for network devices

## CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Senior Network Engineer**
- > **Tier 3 Network Operations Center (NOC) Specialist**
- > **Enterprise Network Solutions Architect (Associate)**

## FREQUENTLY ASKED QUESTIONS

### **Q: What specific troubleshooting methodologies will I master for complex routing protocols like BGP and OSPF after completing this ENARSI course?**

This course extensively covers structured troubleshooting approaches for advanced OSPF and BGP environments. You will learn to diagnose common issues such as adjacency problems, route advertisement failures, path selection anomalies, and redistribution conflicts. Practical skills include utilizing various 'show' commands, debugging techniques, and analyzing routing updates and LSA types to pinpoint and resolve network inconsistencies efficiently.

### **Q: How does the ENARSI certification enhance my ability to design and implement secure VPN solutions in an enterprise setting?**

The ENARSI course provides deep insights into implementing and troubleshooting secure VPN technologies like GRE tunnels, DMVPN (Dynamic Multipoint VPN), and IPsec site-to-site VPNs. You will gain practical skills in configuring secure connectivity, understanding various encryption protocols, and ensuring data integrity and confidentiality across distributed enterprise networks. This prepares you to contribute significantly to the design and implementation of robust and secure network architectures.

### **Q: What foundational knowledge or certifications are recommended before enrolling in the CCNP ENARSI course to ensure success?**

While there are no formal prerequisites for taking the ENARSI exam, it is highly recommended to have a strong understanding of basic routing and switching concepts, equivalent to a CCNA certification. Experience with implementing and managing enterprise network solutions, including foundational OSPF, EIGRP, and basic BGP concepts, will significantly aid your learning and comprehension of the advanced topics covered in this course, ensuring a smoother and more beneficial learning journey.

## ABOUT COMPUTER PRIDE



### *East Africa's Premier IT Training Center*

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

**15+**

Years of Excellence

**10,000+**

Professionals Trained

**50+**

Vendor Certifications

## READY TO ENROL?

Take the next step in your technology career.

#### Location

1st Flr, ICEA Building  
Kenyatta Ave, Nairobi

#### Email

[info@computer-pride.co.ke](mailto:info@computer-pride.co.ke)

#### Phone

+254 705 900 900

[www.computer-pride.co.ke](http://www.computer-pride.co.ke)