

training code: ENARSI / ENG DL 5d / EN

# Implementing Cisco Enterprise Advanced Routing and Services v1.1

The **Implementing Cisco Enterprise Advanced Routing and Services (ENARSI)** training gives you the knowledge and skills needed to install, configure, operate, and troubleshoot a dual stack enterprise network. This training covers advanced routing and infrastructure technologies, expanding on the topics covered in the Implementing and Operating Cisco Enterprise Network Core Technologies (ENCOR) training.

This training prepares you for the **300-410 ENARSI v1.1** exam. If passed, you earn the Cisco Certified Specialist – Enterprise Advanced Infrastructure Implementation certification and satisfy the concentration exam requirement for the Cisco Certified Network Professional (CCNP) Enterprise certification. This training also earns you 40 Continuing Education (CE) credits towards recertification.



## Training recipients

The training is aimed at:

- Entry-Level Network Engineers
- Network Administrators
- Network Support Technicians
- Help Desk Technicians



## Benefits

This training will help you:

- Gain the knowledge you need to install, configure, operate, and troubleshoot a dual stack enterprise network
- Qualify for professional-level job roles in advance routing and services
- Prepare for the 300-410 ENARSI 1.0 exam
- Earn 40 CE credits toward recertification



## Training program

### Course Outline

1. Implementing EIGRP
2. Optimizing EIGRP
3. Troubleshooting EIGRP
4. Implementing OSPF
5. Optimizing OSPF
6. Troubleshooting OSPF
7. Configuring Redistribution
8. Troubleshooting Redistribution
9. Implementing Path Control
10. Implementing IBGP
11. Optimizing BGP
12. Implementing MP-BGP
13. Troubleshooting BGP
14. Exploring MPLS
15. Introducing MPLS L3 VPN Architecture
16. Introducing MPLS L3 VPN Routing
17. Configuring VRF-Lite
18. Implementing DMVPN
19. Implementing DHCP
20. Introducing IPv6 First Hop Security
21. Securing Cisco Routers
22. Troubleshooting Infrastructure Security and Services
23. Troubleshooting with DNA Center Assurance

### Lab Outline

1. Configure EIGRP Using Classic Mode and Named Mode for IPv4 and IPv6
2. Verify the EIGRP Topology Table
3. Configure EIGRP Stub Routing, Summarization, and Default Routing
4. Configure EIGRP Load Balancing and Authentication
5. Troubleshoot EIGRP Issues

6. Configure OSPFv3 for IPv4 and IPv6
7. Verify the Link-State Database
8. Configure OSPF Stub Areas and Summarization
9. Configure OSPF Authentication
10. Troubleshoot OSPF Issues
11. Implement Routing Protocol Redistribution
12. Manipulate Redistribution
13. Manipulate Redistribution Using Route Maps
14. Troubleshoot Redistribution Issues
15. Implement PBR
16. Configure IBGP and EBGP
17. Implement BGP Path Selection
18. Configure BGP Advanced Features
19. Configure BGP Route Reflectors
20. Configure MP-BGP for IPv4 and IPv6
21. Troubleshoot BGP Issues
22. Configure Routing with VRF-Lite
23. Implement Cisco IOS DMVPN
24. Obtain IPv6 Addresses Dynamically
25. Troubleshoot DHCPv4 and DHCPv6 Issues
26. Troubleshoot IPv4 and IPv6 ACL Issues
27. Configure and Verify uRPF
28. Troubleshoot Network Management Protocol Issues: Lab 1
29. Troubleshoot Network Management Protocol Issues: Lab 2



## Expected preparation of the participant

There are no prerequisites for this training. However, the knowledge and skills you are recommended to have before attending this training are:

- General understanding of network fundamentals
- Basic knowledge of local area network (LAN) implementation
- General understanding of network device management and security
- Basic knowledge of network automation
- General understanding of interior gateway protocol (IGP) routing, including EIGRP and OSPF
- General understanding of BGP
- General understanding of infrastructure security and services, including access control lists (ACLs), simple network management protocol (SNMP), DHCP, IP SLA, Syslog, authentication, authorization, and accounting (AAA), and control plane policing (CoPP)

These skills can be found in the following Cisco Learning Offerings:

- Implementing and Administering Cisco Solutions (CCNA)
- Implementing and Operating Cisco Enterprise Network Core Technologies (ENCOR)



## Training Includes

- 5 days of web-based classes with instructor and hands-on lab practice
- Trainer's supervision
- Contact with community
- Coursebook
- Lab environment

### Training method

- lecture
- workshops



## Language

- Training: English
- Materials: English

## Duration

5 days / 35 hours

## Examination description

The training prepares you for the **300-410 ENARSI**, exam, which can be taken for an additional fee at the PearsonVUE center. You can also take the exam on-line.

Details are available at: <https://home.pearsonvue.com/cisco/onvue>