

Course Training

Implementing Cisco Enterprise Advanced Routing and Services [ENASRI] [300-410]

Course Content

The Implementing Cisco Enterprise Advanced Routing and Services (ENASRI) 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.

Course Objectives

you should be able to:

- Configure, optimize, and troubleshoot enhanced interior gateway routing protocol (EIGRP)
- Configure, optimize, and troubleshoot open shortest path first (OSPF)v2 and OSPFv3
- Implement and troubleshoot route redistribution using filtering mechanisms
- Implement and troubleshoot path control using policy-based routing (PBR) and IP service level agreement (SLA)
- Configure, optimize, and troubleshoot border gateway protocol (BGP)
- Implement multiprotocol BGP (MP-BGP)
- Describe the features of multiprotocol label switching (MPLS)
- Describe the major architectural components of an MPLS virtual private network (VPN)
- Identify the routing and packet forwarding functionalities for MPLS VPNs
- Explain how packets are forwarded in an MPLS VPN environment
- Implement Cisco internetwork operating system (IOS®) dynamic multipoint VPNs (DMVPNs)
- Implement and troubleshoot dynamic host configuration protocol (DHCP)
- Describe the tools available to secure the IPV6 first hop
- Troubleshoot Cisco router security features
- Troubleshoot infrastructure security and services
- Troubleshoot network issues with Cisco DNA Center Assurance

Course Prerequisite

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)

Who should attend

- Enterprise network engineers
- Network administrators
- Network support technicians
- Help desk technicians

Course Outline

- Implementing EIGRP
- Optimizing EIGRP
- Troubleshooting EIGRP
- Implementing OSPF
- Optimizing OSPF
- Troubleshooting OSPF
- Configuring Redistribution
- Troubleshooting Redistribution
- Implementing Path Control
- Implementing IBGP
- Optimizing BGP
- Implementing MP-BGP
- Troubleshooting BGP
- Exploring MPLS
- Introducing MPLS L3 VPN Architecture

- Introducing MPLS L3 VPN Routing
- Configuring VRF-Lite
- Implementing DMVPN
- Implementing DHCP
- Introducing IPv6 First Hop Security
- Securing Cisco Routers
- Troubleshooting Infrastructure Security and Services
- Troubleshooting with DNA Center Assurance