Implementing Cisco Enterprise Advanced Routing and Services (ENARSI)

Description

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

Course Content

- Implementing EIGRP
- Optimizing EIGRP
- Troubleshooting EIGRP
- Implementing OSPF
- Optimizing OSPF
- Troubleshooting OSPF
- Implementing Internal Border Gateway Protocol (IBGP)
- Optimizing BGP
- Implementing MP-BGP
- Troubleshooting BGP
- Configuring Redistribution
- Troubleshooting Redistribution
- Implementing Path Control
- Exploring MPLS
- Introducing MPLS L3 VPN Architecture
- Introducing MPLS L3 VPN Routing
- Configuring Virtual Routing and Forwarding (VRF)-Lite
- Implementing DMVPN
- Implementing DHCP
- Troubleshooting DHCP
- Introducing IPv6 First Hop Security
- Securing Cisco Routers
- Troubleshooting Infrastructure Security and Services

Lab / Exercises

- Configure EIGRP Using Classic Mode and Named Mode for IPv4 and IPv6
- Verify the EIGRP Topology Table
- Configure EIGRP Stub Routing, Summarization, and Default Routing
- Configure EIGRP Load Balancing and Authentication
- LAB: Troubleshoot EIGRP Issues
- Configure OSPFv3 for IPv4 and IPv6
- Verify the Link-State Database
- Configure OSPF Stub Areas and Summarization
- Configure OSPF Authentication
- Troubleshoot OSPF

- Implement Routing Protocol Redistribution
- Manipulate Redistribution
- Manipulate Redistribution Using Route Maps
- Troubleshoot Redistribution Issues
- Implement PBR
- Configure IBGP and External Border Gateway Protocol (EBGP)
- Implement BGP Path Selection
- Configure BGP Advanced Features
- Configure BGP Route Reflectors
- Configure MP-BGP for IPv4 and IPv6
- Troubleshoot BGP Issues
- Implement PBR
- Configure Routing with VRF-Lite
- Implement Cisco IOS DMVPN
- Obtain IPv6 Addresses Dynamically
- Troubleshoot DHCPv4 and DHCPv6 Issues
- Troubleshoot IPv4 and IPv6 Access Control List (ACL) Issues
- Configure and Verify Control Plane Policing
- Configure and Verify Unicast Reverse Path Forwarding (uRPF)
- Troubleshoot Network Management Protocol Issues: Lab 1
- Troubleshoot Network Management Protocol Issues: Lab 2

Documentation

- Digital courseware included

Exam

- This course prepares you to the 300-410 ENARSI Implementing Cisco Enterprise Advanced Routing and Services exam. If you wish to take this exam, please contact our secretariat who will let you know the cost of the exam and will take care of all the necessary administrative procedures for you.

Participant profiles

- System and network engineers
- System and network administrators

Prerequisites

- General understanding of the fundamentals of the network
- General understanding of network device management
- General understanding of how to secure network devices
- Have followed or mastered the concepts included in the following course: Implementing and Operating Cisco Enterprise Network Core Technologies

Objectives

- Configure the Enhanced Interior Gateway Routing Protocol (EIGRP) Optimize and troubleshoot EIGRP for IPv4 and IPv6
- Configure, optimize and troubleshoot Open Shortest Path First (OSPF) v2 / v3 for IPv4 and IPv6
- Implement and troubleshoot routing using filtering mechanisms
- Implement policy-based routing (PBR) and IP service level agreement (SLA)
- Configure the Multi-Protocol-Border Gateway Protocol (MP-BGP) for IPv4 and IPv6

- Optimize and troubleshoot MP-BGP in IPv4 and IPv6 environments
- Describe the functionality of multiprotocol switching (MPLS)
- Describe the main architectural components of an MPLS VPN
- Identify routing and packet forwarding functionality for MPLS VPNs
- Implement the Cisco Multipoint Dynamic VPN System (DMVPN) (IOS®)
- Implement Dynamic Host Configuration Protocol (DHCP)
- Describe the tools available to secure the first IPV6 hop
- Troubleshoot Cisco Router Security and Infrastructure Services

Description
Implementing Cisco Enterprise Advanced Routing and Services (ENARSI)
Niveau
Intermédiaire
Virtual Classroom Registration Price (CHF)
4350
Duration (in Days)
5
Reference
CIS-ENARSI