Implementing Cisco Enterprise Advanced Routing and Services (ENARSI)

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In this Implementing Cisco Enterprise Advanced Routing and Services course provides in-depth coverage of advanced enterprise routing technologies, services, and troubleshooting methodologies used in modern Cisco networks. It is designed for experienced network engineers who need to design, optimize, and troubleshoot complex routed environments across enterprise and service-provider-style architectures. The curriculum emphasizes protocol behavior, route control, and real-world operational problem solving.

Students gain deep technical expertise in dynamic routing protocols, including EIGRP, OSPF, and BGP, with extensive focus on optimization, authentication, path selection, and troubleshooting. Advanced topics such as route redistribution, policy-based routing, MP-BGP, VRF-Lite, MPLS L3 VPN concepts, and DMVPN are explored to demonstrate scalable routing design and segmentation. IPv4 and IPv6 services, including DHCP and first-hop security, are integrated throughout the course to reflect modern dual-stack network requirements.

The course also addresses infrastructure security, network services, and operational visibility, including access control, uRPF, and network management troubleshooting. Cisco DNA Center Assurance is introduced as a tool for proactive monitoring and issue resolution. Extensive hands-on labs reinforce theoretical concepts, enabling students to configure, verify, optimize, and troubleshoot routing protocols and services in realistic enterprise scenarios, preparing them for advanced roles and the 300-410 certification exam.

How you'll benefit

This class 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

Course Duration
5 days
Course Price
$4,295.00 or 43 CLCs
Methods of Delivery
- Instructor Led
- Virtual ILT
- On-Site

Why Attend with Current Technologies CLC

- Our Instructors are in the top 10% rated by Cisco
- Our Lab has a dedicated 1 Gig Fiber Connection for our Labs
- Our Labs run up to Date Code for all our courses

Who Should Attend

The primary audience for this course is as follows:

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

- Help Desk Technicians

Prerequisites

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)

OUTLINE

Module 1: Implementing EIGRP

Module 2: Optimizing EIGRP

Module 3: Troubleshooting EIGRP

Module 4: Implementing OSPF

Module 5: Optimizing OSPF

Module 6: Troubleshooting OSPF

Module 7: Configuring Redistribution

Module 8: Troubleshooting Redistribution

Module 9: Implementing Path Control

Module 10: Implementing IBGP

Module 11: Optimizing BGP

Module 12: Implementing MP-BGP

Module 13: Troubleshooting BGP

Module 14: Exploring MPLS

Module 15: Introducing MPLS L3 VPN Architecture

Module 16: Introducing MPLS L3 VPN Routing

Module 17: Configuring VRF-Lite

Module 18: Implementing DMVPN

Module 19: Implementing DHCP

Module 20: Introducing IPv6 First Hop Security

Module 21: Securing Cisco Routers

Module 22: Troubleshooting Infrastructure Security and Services

Module 23: Troubleshooting with DNA Center Assurance

LAB OUTLINE

- Lab 1: Configure EIGRP Using Classic Mode and Named Mode for IPv4 and IPv6
- Lab 2: Verify the EIGRP Topology Table
- Lab 3: Configure EIGRP Stub Routing, Summarization, and Default Routing
- Lab 4: Configure EIGRP Load Balancing and Authentication
- Lab 5: Troubleshoot EIGRP Issues
- Lab 6: Configure OSPFv3 for IPv4 and IPv6
- Lab 7: Verify the Link-State Database
- Lab 8: Configure OSPF Stub Areas and Summarization
- Lab 9: Configure OSPF Authentication
- Lab 10: Troubleshoot OSPF Issues
- Lab 11: Implement Routing Protocol Redistribution
- Lab 12: Manipulate Redistribution
- Lab 13: Manipulate Redistribution Using Route Maps
- Lab 14: Troubleshoot Redistribution Issues
- Lab 15: Implement PBR
- Lab 16: Configure IBGP and EBGP
- Lab 17: Implement BGP Path Selection
- Lab 18: Configure BGP Advanced Features
- Lab 19: Configure BGP Route Reflectors
- Lab 20: Configure MP-BGP for IPv4 and IPv6
- Lab 21: Troubleshoot BGP Issues
- Lab 22: Configure Routing with VRF-Lite
- Lab 23: Implement Cisco IOS DMVPN
- Lab 24: Obtain IPv6 Addresses Dynamically
- Lab 25: Troubleshoot DHCPv4 and DHCPv6 Issues
- Lab 26: Troubleshoot IPv4 and IPv6 ACL Issues
- Lab 27: Configure and Verify uRPF
- Lab 28: Troubleshoot Network Management Protocol Issues: Lab 1
- Lab 29: Troubleshoot Network Management Protocol Issues: Lab 2