

ENARSI - IMPLEMENTING CISCO ENTERPRISE ADVANCED ROUTING AND SERVICES V1.1

Course Code: 100476

Learn to install, configure, operate and troubleshoot a Cisco enterprise network including advanced routing and infrastructure technologies.

- Post-class ongoing "**Office Hours**" events: These interactive events grant you access to top instructors long after your class is completed to ask questions and ensure that you successfully utilize what you've learned.
- Cisco-related **Acronym List**: This list will help you understand key terms that you may encounter.
- **Tips & Tricks**: From preparing for your course through post-class review, these tips will help you to apply your new knowledge.

The *ENARSI - Implementing Cisco Enterprise Advanced Routing and Services v1.1* course 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 *ENCOR - Implementing and Operating Cisco Enterprise Network Core Technologies v1.0* course. The course will prepare you for the Implementing Cisco Enterprise Advanced Routing and Services (300-410 ENARSI) exam, which leads to the new CCNP Enterprise and Cisco Certified Specialist - Enterprise Advanced Infrastructure Implementation certifications.

This course is eligible for 40 Continuing Education Credits (ILT & ELT Modality).

What You'll Learn

After taking this course, you should be able to:

- Configure classic Enhanced Interior Gateway Routing Protocol (EIGRP) and named EIGRP for IPv4 and IPv6
- Optimize classic EIGRP and named EIGRP for IPv4 and IPv6
- Troubleshoot classic EIGRP and named EIGRP for IPv4 and IPv6

- Configure Open Shortest Path First (OSPF)v2 and OSPFv3 in IPv4 and IPv6 environments
- Optimize OSPFv2 and OSPFv3 behavior
- Troubleshoot OSPFv2 for IPv4 and OSPFv3 for IPv4 and IPv6
- Implement route redistribution using filtering mechanisms
- Troubleshoot redistribution
- Implement path control using Policy-Based Routing (PBR) and IP service level agreement (SLA)
- Configure Multiprotocol-Border Gateway Protocol (MP-BGP) in IPv4 and IPv6 environments
- Optimize MP-BGP in IPv4 and IPv6 environments
- Troubleshoot MP-BGP for IPv4 and IPv6
- Describe the features of Multiprotocol Label Switching (MPLS)
- Describe the major architectural components of an MPLS 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 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

This course will help you:

- Gain the knowledge you need to install, configure, operate, and troubleshoot an enterprise network
- Qualify for professional-level job roles in advance routing and services
- Prepare for the Implementing Cisco Enterprise Advanced Routing and Services (300-410 ENARSI) exam.

Learn more about this topic. View the recorded webinar [BGP – What is it and why should I care?](#)

Who Needs to Attend

- Enterprise network engineers
- System engineers
- System administrators
- Network administrators

Prerequisites

Before taking this course, you should have:

- General understanding of network fundamentals
- Basic knowledge of how to implement LANs
- General understanding of how to manage network devices
- General understanding of how to secure network devices

- Basic knowledge of network automation

ENARSI - IMPLEMENTING CISCO ENTERPRISE ADVANCED ROUTING AND SERVICES V1.1

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CLASSROOM LIVE

\$4,195 USD

5 Day

Classroom Live Outline

- 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

Classroom Live Labs

- 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

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VIRTUAL CLASSROOM LIVE

\$4,195 USD

5 Day

Virtual Classroom Live Outline

- 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

Virtual Classroom Live Labs

- 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
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- Configure OSPF Authentication
- Troubleshoot OSPF
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- Manipulate Redistribution
- Manipulate Redistribution Using Route Maps
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- Implement PBR
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- Configure BGP Advanced Features
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- Troubleshoot Network Management Protocol Issues: Lab 2

Aug 10 - 14, 2026 | 8:30 AM - 4:30 PM EDT

Oct 26 - 30, 2026 | 8:30 AM - 4:30 PM EDT

Nov 9 - 13, 2026 | 8:30 AM - 4:30 PM EST

Dec 7 - 11, 2026 | 8:30 AM - 4:30 PM EST

Jan 4 - 8, 2027 | 8:30 AM - 4:30 PM EST

Jan 25 - 29, 2027 | 11:30 AM - 7:30 PM EST

Feb 15 - 19, 2027 | 8:30 AM - 4:30 PM EST

Mar 8 - 12, 2027 | 8:30 AM - 4:30 PM EST

Mar 29 - Apr 2, 2027 | 11:30 AM - 7:30 PM EDT

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ON-DEMAND

\$1,000 USD

On-Demand Outline

- 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

On-Demand Labs

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- Verify the EIGRP Topology Table

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- LAB: Troubleshoot EIGRP Issues
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PRIVATE GROUP TRAINING

5 Day

Visit us at www.globalknowledge.com or call us at 1-866-716-6688.

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