



DESIGNING CISCO ENTERPRISE NETWORKS (ENSLD) v1.0

The Designing Cisco Enterprise Networks (ENSLD) v1.0 course gives you the knowledge and skills you need to design an enterprise network. This course serves as a deep dive into enterprise network design and expands on the topics covered in the Implementing and Operating Cisco® Enterprise Network Core Technologies (ENCOR) v1.0 course.

This course also helps you prepare to take the exam, 300-420 Designing Cisco Enterprise Networks (ENSLD), which is part of the CCNP® Enterprise and Cisco Certified Specialist – Enterprise Design certifications.

How you'll benefit

This class will help you:

- Learn the skills, technologies, and best practices needed to design an enterprise network
- Deepen your understanding of enterprise design including advanced addressing and routing solutions, advanced enterprise campus networks, WAN, security services, network services, and software-defined access SDA
- Earn 40 CE credits toward recertification

Why Attend with Current Technologies CLC

- Our Instructors are 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



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Objectives

Upon completing this course, the student will be able to meet these objectives:

- Design Enhanced Interior Gateway Routing Protocol (EIGRP) internal routing for the enterprise network
- Design Open Shortest Path First (OSPF) internal routing for the enterprise network
- Design Intermediate System to Intermediate System (IS-IS) internal routing for the enterprise network
- Design a network based on customer requirements
- Design Border Gateway Protocol (BGP) routing for the enterprise network
- Describe the different types and uses of Multiprotocol BGP (MP-BGP) address families
- Describe BGP load sharing
- Design a BGP network based on customer requirements
- Decide where the L2/L3 boundary will be in your Campus network and make design decisions
- Describe Layer 2 design considerations for Enterprise Campus networks
- Design a LAN network based on customer requirements
- Describe Layer 3 design considerations in an Enterprise Campus network
- Examine Cisco SD-Access fundamental concepts
- Describe Cisco SD-Access Fabric Design
- Design a Software-Defined Access (SD-Access) Campus Fabric based on customer requirements
- Design service provider-managed VPNs
- Design enterprise-managed VPNs
- Design a resilient WAN
- Design a resilient WAN network based on customer requirements

Course Duration

5 day

Course Price

\$4,195.00

Methods of Delivery

- Instructor Led
- Virtual ILT

Certification Exam

300-420

Cisco CE Credits

40



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- Examine the Cisco SD-WAN architecture
- Describe Cisco SD-WAN deployment options
- Design Cisco SD-WAN redundancy
- Explain the basic principles of QoS
- Design Quality of Service (QoS) for the WAN
- Design QoS for enterprise network based on customer requirements
- Explain the basic principles of multicast
- Designing rendezvous point distribution solutions
- Describe high-level considerations when doing IP addressing design
- Create an IPv6 addressing plan
- Plan an IPv6 deployment in an existing enterprise IPv4 network
- Describe the challenges that you might encounter when transitioning to IPv6
- Design an IPv6 addressing plan based on customer requirements
- Describe Network APIs and protocols
- Describe Yet Another Next Generation (YANG), Network Configuration Protocol (NETCONF), and Representational State Transfer Configuration Protocol (RESTCONF)

Who Should Attend

- Network Design Engineers
- Network Engineers
- System Administrators



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Prerequisites

Before taking this course, you should have earned CCNA® certification or be familiar with:

- Understand network fundamentals
- Implement LANs
- Implement LAN connectivity

Course Outline

- Designing EIGRP Routing
- Designing OSPF Routing
- Designing IS-IS Routing
- Design Case Study Activity: Designing Enterprise Connectivity
- Designing BGP Routing and Redundancy
- Understanding BGP Address Families and Attributes
- Design Case Study Activity: Designing an Enterprise Network with BGP Internet Connectivity
- Designing the Enterprise Campus LAN
- Designing Layer 2 Campus
- Design Case Study Activity: Designing an Enterprise Campus LAN
- Designing Layer 3 Campus
- Discovering the Cisco SD-Access Architecture
- Exploring Cisco SD-Access Fabric Design
- Exploring Cisco SD-Access Site Design Strategy and Considerations
- Design Case Study Activity: Designing Cisco SD-Access in the Enterprise
- Designing Service Provider-Managed VPNs



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- Designing Enterprise-Managed VPNs
- Designing WAN Resiliency
- Design Case Study Activity: Designing Resilient Enterprise WAN
- Examining Cisco SD-WAN Architectures
- Examining Cisco SD-WAN Deployment Design Considerations
- Designing Cisco SD-WAN Routing and High Availability
- Design Case Study Activity: Designing Resilient Enterprise Cisco SD-WAN
- Understanding QoS
- Designing LAN and WAN QoS
- Design Case Study Activity: Designing QoS in an Enterprise Network
- Exploring Multicast with Protocol-Independent Multicast-Sparse Mode (PIM-SM)
- Designing Rendezvous Point Distribution Solutions
- Designing an IPv4 Address Plan
- Exploring IPv6
- Deploying IPv6
- Design Case Study Activity: Designing an Enterprise IPv6 Network
- Introducing Network APIs and Protocols
- Exploring YANG, NETCONF, RESTCONF, and Model-Driven Telemetry

LAB OUTLINE

- Designing Enterprise Connectivity
- Designing an Enterprise Network with BGP Internet Connectivity
- Designing an Enterprise Campus LAN



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- Designing Resilient Enterprise WAN
- Designing QoS in an Enterprise Network
- Designing an Enterprise IPv6 Network