



Designing Cisco Enterprise Networks (ENSLD)

Cisco

- **Nível:** Avançado
 - **Duração:** 35h
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Sobre o curso

The **Designing Cisco Enterprise Networks (ENSLD)** 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) course.

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

This course 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.
- Validate your knowledge and prepare to take the Designing Cisco Enterprise Networks v1.0 (ENSLD 300-420) exam.

After completing this course, you should be able to:

- 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 an Software-Defined Access (SD-Access) Campus Fabric based on customer requirements
 - Design service provider or enterprise-managed VPNs
 - Design a resilient WAN and Design a resilient WAN network based on customer requirements
 - 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 and Design an IPv6 addressing plan based on customer requirements
 - Plan an IPv6 deployment in an existing enterprise IPv4 network
 - Describe the challenges that you might encounter when transitioning to IPv6
 - Describe Network APIs and protocols
 - Describe Yet Another Next Generation (YANG), Network Configuration Protocol (NETCONF), and Representational State Transfer Configuration Protocol (RESTCONF)
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Destinatários

Presales and postsales network engineers that are involved in network design, planning, and implementation, Network administrators and designers that are responsible for designing and implementing the enterprise network.

Pré-requisitos

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

- Basic network fundamentals and building simple LANs
- Basic IP addressing and subnets
- Routing and switching fundamentals

- Basic wireless networking concepts and terminology
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Metodologia

Instructor-led training: 5 days in the classroom with hands-on lab practice.

Programa

- Designing EIGRP Routing
- Designing OSPF Routing
- Designing IS-IS Routing
- Designing BGP Routing and Redundancy
- Understanding BGP Address Families
- Designing the Enterprise Campus LAN
- Designing the Layer 2 Campus
- Designing the Layer 3 Campus
- Discovering the Cisco SD-Access Architecture
- Exploring Cisco SD-Access Fabric Design
- Designing Service Provider-Managed VPNs
- Designing Enterprise-Managed VPNs
- Designing WAN Resiliency
- Examining Cisco SD-WAN Architectures
- Cisco SD-WAN Deployment Design Considerations
- Designing Cisco SD-WAN Routing and High Availability
- Understanding QoS
- Designing LAN and WAN QoS
- Exploring Multicast with Protocol-Independent Multicast-Sparse Mode
- Designing Rendezvous Point Distribution Solutions
- Designing an IPv4 Address Plan
- Exploring IPv6
- Deploying IPv6
- Introducing Network APIs and Protocols
- Exploring YANG, NETCONF, RESTCONF, and Model-Driven Telemetry

Labs

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

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