# Designing Cisco Enterprise Networks Training

Duration: **5 Day**

BİLGİNÇ IT Academy
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## Overview

The Designing Cisco Enterprise Networks (ENSLD) training deepens your knowledge of designing enterprise networks. Topics covered include enterprise network design, including protocols and media for wired and wireless networks, SD-Access, VPN, Quality of Service (QoS), IPv6, and network programmability. This training earns you 40 Continuing Education (CE) credits towards recertification and helps prepare you to take the 300-420 Designing Cisco Enterprise Networks (ENSLD) exam, which is part of the CNP Enterprise, Cisco Certified Specialist - Enterprise Design certification.

**How You'll Benefit**

This training 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 300-420 Designing Cisco Enterprise Networks (ENSLD) exam.

## Prerequisites

The Knowledge and skills that students are expected to have before attending this course are:

- Understanding network fundamentals
- Implementing LANs
- Implementing LAN connectivity

The Cisco course offerings that contribute to the recommended skills and knowledge are:

Implementing and Administering Cisco Solutions (CCNA)

Implementing and Operating Cisco Enterprise Network Core Technologies (ENCOR)

### Target Audience

- Network design engineers
- Network engineers
- System administrators

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## What You Will Learn

- 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
- Examine the Cisco SD-WAN architecture
- Describe Cisco SD-WAN deployment options
- Understand Cisco SD-WAN – NAT and hybrid design considerations
- Design Cisco SD-WAN redundancy
- Explain the basic principles of Quality of Service (QoS)
- Design QoS for the WAN
- Design QoS for enterprise network based on customer requirements
- Explain the basic principles of multicast
- Explore multicast with PIM-SM
- 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)