

Course Code ENSLD
Duration 5 days

Overview

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.

Audience

This course also helps you prepare to learn the skills, technologies and best practices needed to design an enterprise network, to 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, and to prepare to take the exam, Designing Cisco Enterprise Networks v1.0 (ENSLD 300-420), which is part of the CCNP® Enterprise and Cisco Certified Specialist - Enterprise Design certifications.

Learning Objectives

By actively participating in this course, you will learn about the following:

- ▶ Designing Enhanced Interior Gateway Routing Protocol (EIGRP) internal routing for the enterprise network.
- ▶ Designing Open Shortest Path First (OSPF) internal routing for the enterprise network.
- ▶ Designing Intermediate System to Intermediate System (IS-IS) internal routing for the enterprise network.
- ▶ Designing a network based on customer requirements.
- ▶ Designing Border Gateway Protocol (BGP) routing for the enterprise network.
- ▶ Describing the different types and uses of Multiprotocol BGP (MP-BGP) address families.
- ▶ Describing BGP load sharing.
- ▶ Designing a BGP network based on customer requirements.
- ▶ Decide where the L2/L3 boundary will be in your Campus network and make design decisions.
- ▶ Describing Layer 2 design considerations for Enterprise Campus networks.
- ▶ Designing a LAN network based on customer requirements.
- ▶ Describing Layer 3 design considerations in an Enterprise Campus network.
- ▶ Examining Cisco SD-Access fundamental concepts.
- ▶ Describing Cisco SD-Access Fabric Design.
- ▶ Designing an Software-Defined Access (SD-Access) Campus Fabric based on customer requirements.
- ▶ Designing service provider-managed VPNs.
- ▶ Designing enterprise-managed VPNs.
- ▶ Designing a resilient WAN.
- ▶ Designing a resilient WAN network based on customer requirements.
- ▶ Examining the Cisco SD-WAN architecture.
- ▶ Describing Cisco SD-WAN deployment options.
- ▶ Designing Cisco SD-WAN redundancy.
- ▶ Explaining the basic principles of QoS.
- ▶ Designing Quality of Service (QoS) for the WAN.
- ▶ Designing QoS for enterprise network based on customer requirements.
- ▶ Explaining the basic principles of multicast.
- ▶ Designing rendezvous point distribution solutions.
- ▶ Describing high-level considerations when doing IP addressing design.
- ▶ Creating an IPv6 addressing plan.



- ▶ Planning an IPv6 deployment in an existing enterprise IPv4 network.
- ▶ Describing the challenges that you might encounter when transitioning to IPv6.
- ▶ Designing an IPv6 addressing plan based on customer requirements.
- ▶ Describing Network APIs and protocols.
- ▶ Describing Yet Another Next Generation (YANG), Network Configuration Protocol (NETCONF), and Representational State Transfer Configuration Protocol (RESTCONF).

Pre-Requisites

- ▶ Basic network fundamentals and building simple LANs
- ▶ Basic IP addressing and subnets
- ▶ Routing and switching fundamentals
- ▶ Basic wireless networking concepts and terminology

Course Contents

- ▶ 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

Exam Details

This course leads to the 300-420 – Designing Cisco Enterprise Networks (ENSLD) exam.

Successful completion will earn you the Cisco Certified Specialist - Enterprise Design certification and will satisfy the concentration exam requirement for the new CCNP Enterprise certification. Other exams required for the CCNP Enterprise certification:

- ▶ Implementing Cisco Enterprise Network Core Technologies (ENCOR)

Further Information

For more information or to book this course, please contact our Course Enquiries Team on **01752 227330** (Option 2) or email us at enquiries@skilltec.co.uk.

