

Cisco Designing Cisco Enterprise Networks v1.1 (ENSLD)

Overview

The Designing Cisco Enterprise Networks (ENSLD) v1.1 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 300-420 Designing Cisco Enterprise Networks (ENSLD) exam which is part of the CCNP® Enterprise and Cisco Certified Specialist - Enterprise Design certifications.

Prerequisite Comments

Before taking this course, you should have earned CCNA® certification or be able to:

Understand network fundamentals

Implement LANs

Implement Internet connectivity

The following Cisco courses can help you build the recommended skills and knowledge:

Implementing and Administering Cisco Solutions (CCNA)

Implementing and Operating Cisco Enterprise Network Core Technologies (ENCOR)

Target Audience

Network design engineers

Network engineers

System administrators

Course Objectives

After taking 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

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Schedule

Class Length: 5 Days

G2R = "Guaranteed to Run" | OLL = "Online LIVE"
ILT = "Instructor-Led-Training"

This course is not currently available on the public schedule. Please contact us using the information in the footer below to inquire about future dates or to schedule a private class.

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- 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
- 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)

Course Outline

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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
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