ENSLD - DESIGNING CISCO ENTERPRISE NETWORKS V2.0

Course Code: 100478

Take a deep dive into Cisco enterprise network design.

The *ENSLD - Designing Cisco Enterprise Networks v2.0* 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 *ENCOR - Implementing and Operating Cisco Enterprise Network Core Technologies v1.1* course.

This course also helps you prepare to take the Designing Cisco Enterprise Networks v1.1 (ENSLD 300-420) exam, which is part of the CCNP Enterprise and Cisco Certified Specialist - Enterprise Design certifications.

This course is eligible for 40 Continuing Education Credits (ILT & ELT Modality).

What You'll Learn

The ENSLD 300-420 exam certifies your knowledge of enterprise design including advanced addressing and routing solutions, advanced enterprise campus networks, WAN, security services, network services, and SDA.

After taking this course, you should be able to:

- Design EIGRP internal routing for the enterprise network
- Design OSPF internal routing for the enterprise network
- Design IS-IS internal routing for the enterprise network
- Design a network based on customer requirements
- Design BGP routing for the enterprise network
- Describe the different types and uses of MP-BGP address families
- Describe BGP load sharing
- Design a BGP network based on customer requirements
- Decide where 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 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 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 YANG, NETCONF and RESTCON

Who Needs to Attend

- Network design engineers
- Network engineers
- System administrators

Prerequisites

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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CLASSROOM LIVE	$3,995 USD	5 Day

Classroom Live Outline

- 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 Layer 2 Campus
- Designing 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 PIM-SM
- 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

Classroom Live Labs

Lab Outline-*Note, paper labs, no hardware

- 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

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VIRTUAL CLASSROOM LIVE	$3,995 USD	5 Day

Virtual Classroom Live Outline

- 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 Layer 2 Campus
- Designing 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
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- Deploying IPv6
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Virtual Classroom Live Labs

Lab Outline-*Note, paper labs, no hardware

- 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

May 11 - 15, 2026 | 8:30 AM - 4:30 PM EDT

Jul 20 - 24, 2026 | 8:30 AM - 4:30 PM EDT

Nov 2 - 6, 2026 | 8:30 AM - 4:30 PM EST

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ON-DEMAND	$750 USD

On-Demand Outline

- 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 Layer 2 Campus
- Designing 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 PIM-SM
- 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

On-Demand Labs

Lab Outline-*Note, paper labs, no hardware

- 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

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PRIVATE GROUP TRAINING	5 Day

Visit us at www.globalknowledge.com or call us at 1-866-716-6688.

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