THINQTANK® LEARNING

# CISCO CCNP ENTERPRISE
# Designing Cisco Enterprise Networks (ENSLD)

## Our Learning Exclusive

- Custom exam prep software and materials
- Exam delivery in classroom with 98% success
- Course specific thinQtank® Learning publications to promote fun exciting learning
- Extended hours of training including immersive hands-on exercises
- WE DO NOT "TEACH THE TEST" We always deliver valuable hands-on experience
- Receive all reading material and study guides when you register
- All courses taught by CCIE expert instructors

## Course Duration

- Five days of instructor-led learning
- 80% lecture, 20% hands-on labs

## Prerequisites

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

## Target Audience

- Network design engineers
- Network engineers
- System administrators

## Exam Information

- 300-420 – Designing Cisco Enterprise Networks (ENSLD)

## Delivery Methods

- Instructor-Led Training
- Immersive Live-Online Training
- On-Site and Custom Delivery

## Exclusive Tools and Learning Package

- Comprehensive video training package
- Virtual builds of all labs and hands-on learning objectives to continue hands-on experience after course completion
- Industry-unique training course to achieve multiple certifications in one training camp
- Post-class ongoing "Office Hours" events: Interactive events grant you access to top instructors long after your class is completed to ensure that you successfully utilize what you've learned.
- Cisco-related Acronym List to help you understand key terms
- Tips & Tricks: From preparing for your course through post-class review, these tips will help you to apply your new knowledge

## Course Overview

thinQtank® Learning is offering a unique five-day training camp comprised of five days of instructor-led learning that gives students the knowledge and skills needed to design an enterprise network. This course is a deep dive into enterprise network design and builds on the topics covered in the ENCOR - Implementing and Operating Cisco Enterprise Network Core Technologies course.

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

## Course Objectives

The ENSLD 300-420 exam certifies learners' 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

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## Course Objectives Continued

- 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

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## Course Lessons

- 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

## Labs and Discussions (Written)

- 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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