

Designing for Cisco Internetwork Solutions (CS-DESGN) v3.0

Modality: Virtual Classroom

Duration: 2 Days

CLC: 25 Units

About this course:

This course of Designing for Cisco Internetwork Solutions has been made to furnish understudies with the correct specialized information and aptitudes required to structure the best network as per the prerequisites. The 2-day intermediate-level course includes routed and switched network service virtualization, infrastructure designing, and productive WAN and LAN availability for businesses and organizations.

Also, the course includes a Model of Enterprise Composite that is utilized to help instruct understudies everything they have to think about the designing, planning, execution, activity, and advancement of different modules, making it perfect for IT operations training.

Course objectives:

- Distinguish the characteristics and features of the existing system and comprehend the prerequisites for the structure of the new system
- See how the basics of network designing can be utilized to structure another network.
- Comprehend how systems can be disentangled using the model of the Enterprise Composite Network.
- Utilize Cisco Borderless Networks and modular designing techniques to plan a hierarchical modular Enterprise Campus.
- Effectively plan Enterprise Edge Networks
- Select Network Management arrangements that are ideal for explicit circumstances
- Plan the WAN and branch office.
- The design intends to address IPv6 and IPv4 networks.
- Select protocols that will give the best outcomes to a particular network.
- Use Cisco and industry best practices for designing present-day data centers.
- Distinguish and assess the options of the security that will be generally reasonable for a specific network.
- Plan video, voice, and collaboration solutions for the system
- Comprehend why software structured systems are significant
- Utilize the Cisco Wireless LAN Controller and lightweight access point for designing arrangements

Audience:

This course is proposed for:

- Network engineers and architects.

- System administrators and network designers.
- IT professionals and learners interested in polishing their networking skills

Prerequisites:

- Knowledge of or completion of the CCNA course
- Information of the ideas included in the course of Implementing Cisco IP Routing v2.0.
- Understanding of LAN, WAN, bridging, routing, switching, and other networking protocols and advances.
- Understanding of the ideas covered in the Implementing Cisco IP Switched Networks v2.0

Course Outline:

Module 1: Design Methodologies

- Lesson 1: Design Life Cycle
- Lesson 2: Characterizing Existing Network
- Lesson 3: Top-Down Approach
- Lesson 4: Module Summary
- Lesson 5: Module Self-Check

Module 2: Network Design Objectives

- Lesson 1: Building a Modular Network
- Lesson 2: Applying Modularity: Hierarchy in a Network
- Lesson 3: Applying Modularity: Virtualization Overview
- Lesson 4: Module Summary
- Lesson 5: Module Self-Check

Module 3: Campus Network Design

- Lesson 1: Layer 2/Layer 3 Demarcation
- Lesson 2: Layer 2 Design Considerations
- Lesson 3: High Availability Considerations
- Lesson 4: Layer 3 Design Considerations
- Lesson 5: Traffic and Interconnections
- Lesson 6: Module Summary
- Lesson 7: Module Self-Check

Module 4: Enterprise Network Design

- Lesson 1: Designing a Secure Network
- Lesson 2: Edge Connectivity Design
- Lesson 3: WAN Design
- Lesson 4: Branch Design
- Lesson 5: Connecting to the Data Center
- Lesson 6: Module Summary

- Lesson 7: Module Self-Check

Module 5: Design of Internal Routing and Connecting to the Internet

- Lesson 1: Routing Protocol Considerations
- Lesson 2: Expanding EIGRP Design
- Lesson 3: Expanding OSPF Design
- Lesson 4: Introducing IS-IS
- Lesson 5: Expanding IS-IS Design
- Lesson 6: Using BGP to Connect to the Internet
- Lesson 7: Module Summary
- Lesson 8: Module Self-Check

Module 6: Expanding the Existing Network

- Lesson 1: Understanding Quality of Service
- Lesson 2: Supporting Wireless Access
- Lesson 3: Integrating Collaboration
- Lesson 4: Module Summary
- Lesson 5: Module Self-Check

Module 7: IP Addressing Design

- Lesson 1: Concepts of Good IP Addressing
- Lesson 2: Creating an Addressing Plan for IPv4
- Lesson 3: IPv6 Addressing
- Lesson 4: Supporting IP Addressing
- Lesson 5: Module Summary
- Lesson 6: Module Self-Check

Module 8: Introduction to Software Defined Networks

- Lesson 1: SDN Overview
- Lesson 2: Module Self-Check

Labs:

Challenge 1: Ask the Right Questions

Challenge 2: Design Branch's LAN

Challenge 3: Design Branch's Connections to the HQ

Challenge 4: Design Branch's Routing

Challenge 5: Design Support for Wireless and Collaboration

Challenge 6: Design IPv4 Addressing Plan

Challenge 7: Design IPv6 Addressing Plan