

Design and Build Enterprise Networks

Technical Training

Duration: 3 days; Seats: max 6

[Sign up for the training](#)



Training Overview

Design and Build Enterprise Networks is a hands-on training course covering network fundamentals and best practices in designing and implementing enterprise networks. During training, we use a laboratory environment equipped with the latest technologies and network products.

The training presents the basics of networking, examples of real live projects, photos of correctly constructed server rooms (as well as poorly designed ones), techniques for designing, implementing and troubleshooting IP networks.

Training Outline

Module 1: Introduction to IP Networks

- Cisco Certifications
- Enterprise Infrastructure Components
- Rules for Designing & Building Networks
- TCP/IP and OSI Networking Models
- Ethernet frame construction
- IP packet construction
- IP addressing concept
- LAB - IP Subnetting
- Q&A

Module 2: Switching & Routing

- Switching
 - MAC Learning
 - Collision Domains
 - Internal Processing
 - VLAN
 - Trunking
 - Spanning Tree
 - ARP
 - LAB - Switching
- Routing
 - Routing between VLANs
 - Static Routing
 - Dynamic Routing
 - LAB - Routing
- Q&A

Module 3: WAN & Internet Edge

- WAN
 - MetroEthernet
 - DSL
 - Cable
 - Cellular
 - MPLS
 - VPN over Internet
 - LAB - S2S VPN

- Internet Edge
 - DMZ
 - NAT
 - ACL
 - LAB - NAT
- Q&A

Module 4: Service Availability

- First Hop Redundancy Protocol
 - Hot Standby Router Protocol (HSRP)
 - Virtual Router Redundancy Protocol (VRRP)
 - Gateway Load Balancing Protocol (GLBP)
 - LAB - FHRP
- Switch stack
- VSS and MEC concept

Module 5: Wireless Access

- Wi-Fi standards
- Cisco wireless platform
- Cisco centralized architecture
 - CAPWAP
 - Flex Connect
 - Guest Portal
- WLC Configuration Model
- LAB - WLC configuration
- Q&A

Module 6: Training Summary