

IP Networking

(Cisco Certified Networking Professional-CCNP)

Instructor Led Live Virtual Class

Duration: 1 Month | Course Number 10B

Intended Audience

The Cisco Certified Networking Professional course is specially designed for the Network Administrators, Network Specialists, Network Engineers, System Administrators, Network Designers, Network Technicians and IT managers. It is a perfect course to enhance networking skills of aspirants with networking experience.

Course Description

The Cisco Certified Networking Professional course is an advanced level step in Cisco career as a professional. Completion of this course will open the new ways to get enrol in professional world of Cisco as a skilful engineer. After getting a core knowledge of routing and switching, this course will play the role of a milestone in your IT career. It is a high level of routing which the world's top companies demand from their senior employees or professionals.

Learning Outcomes

- To provide the network engineers and IT experts with advanced skills of networking.
- The network engineers will become capable enough to handle complex networking.
- Successful configuration of LAN-WAN networks.
- Handling of multi-nodes.
- To get all the desired knowledge and skills of advanced IP Addressing and routing secure ISR routers in LAN-WAN networks.
- Advanced operational activities on Ethernet, TCP/IP networks.
- Proper knowledge about routing protocols like OSPF and EIGRP.
- Using Broader Gateway protocol for autonomous systems.
- Securing the routers.
- Tunnelling methods.

Course Topics

1. Fundamentals of Routing Protocol
 - a) Introduction
 - b) Role of Routing in Enterprise
 - c) Interior or Exterior routing protocol
 - d) Categories of Routing Protocol.
2. Networking Technology Fundamentals
 - a) Network Traffic Type
 - b) Types of network Architecture
3. TCP/IP Fundamentals
 - a) Characteristics of IP
 - b) Review of Routing
 - c) TCP Characteristics
 - d) UDP Characteristics
 - e) All layers of TCP/IP
4. Remote Connectivity
 - a) VPN based on MPLS
5. Breakdown of MPLS VPN
 - a) Introduction
 - b) Layer 2 MPLS VPN
 - c) Layer 3 MPLS VPN
 - d) GRE Tunnel
6. GRE DMVPN NHRP and IPsec
 - a) Basic Introduction
 - b) DMVPN
 - c) Multipoint GRE
 - d) Next Hop Resolution protocol (NHRP)
 - e) Security by IPsec
7. IPv6 and RIPng
 - a) IP Addresses Beginning
 - b) IPv4 to IPv6
 - c) Types of Addresses of IPv6
 - d) IPv6 Addresses Configuration
 - e) How to use RIPng
8. Advanced EIGRP
 - a) How to build EIGRP Topology Table?
 - b) Construction of IP Routing Table
 - c) Optimization of EIGRP Convergence
 - d) Filtering the Route
9. Advanced OSPF
 - a) Professional Route Filtering
 - b) Summarization of Route
 - c) Stub Areas and Default routes
 - d) OSPF Version 3.
10. Redistribution of Route
 - a) Basics of Route Redistribution
 - b) Redistribution between OSPF and EIGRP
 - c) Redistribution with Route maps
 - d) Distributed lists
11. Route Selection
 - a) Introduction to Route Selection
 - b) Policy based Routing
 - c) IP Service Level Agreement
12. BGP
 - a) BGP Introduction.
 - b) External BGP in the Enterprises
 - c) Verification of BGP table
13. Authentication of Routing protocol
 - a) Methods of Authentication
 - b) Authentication of EIGRP
 - c) Authentication of BGP
14. Summary
 - a) Summary of Full Course