



## **CCNA COURSE CONTENT**

- > Introduction to Computer Networking Concepts
- Perspective on Networking
- The TCP/IP and OSI Networking Concepts
- ➤ The TCP/IP Protocol
- > The OSI Reference Model
- Fundamentals of LANs
- Overview of Ethernet LAN
- Ethernet UTP Cabling
- > Improving Performance by using Switches instead of Hubs
- Ethernet Data-Link Protocols
- > Frame Relay and Packet-Switching Ser vices
- Fundamentals of IP Addressing and Routing
- Network Layer Functions
- Routing
- > IP Addressing
- > IP Routing
- > IP Routing Protocols
- Network Utilities
- Fundamentals of TCP/IP Transport, Applications and Security
- TCP/IP Layer 4 Protocols: TCP and UDP
- > TCP/IP Applications
- Network Security
- LAN Switching
- Ethernet LAN Switching Concepts
- LAN Switching Concepts
- Operating CISCO LAN Switches
- Configuring CISCO IOS Software
- Ethernet Switch Configuration
- Configuration of features in common with Routers
- LAN Switch Configuration and Operation
- Ethernet Switch Troubleshooting
- Perspective on Network Verification and Troubleshooting
- Verifying the Network Topology with CISCO Discovery Protocol
- Analyzing Layer 1 and 2 Interface status
- Analyzing the Layer 2 Forwarding Path with the MAC Address Table Wireless LANs
- Wireless LAN Security
- > IP Routing
- IP Addressing and Subnetting
- > IP Addressing and Routing
- Math Operations Used When Subnetting
- Analyzing and Choosing Subnets Masks
- Analyzing Existing Subnets
- ➤ CISCO Router ISO CLI
- Protocol Concepts and Configuration
- Connected and Static Routes
- Routing Protocol
- Configuring and Verifying RIP-2 Troubleshooting IP Routing
- IP Troubleshooting Tips and Tools
- Routing troubleshooting scenario
- > IP Services for Internet Access WAN Configuration
- Configuring Point to Point WANs
- Configuring and Troubleshooting Internet Access Routers