

Cisco Certified Network Associate (CCNA)

Why CCNA Network Associate Certification ?

Your career in networking begins with CCNA

This course will help you:

Learn the knowledge and skills to install, configure, and operate a small-to medium-sized network

Gain a foundation in the essentials of networking, security, and automation.

Technology areas

- Networking
- Security
- Automation

Training Solutions:

✓ Offline Classroom Instructor-Led Training in our labs or onsite Locations.

✓ Virtual Instructor-Led Training Via Virtual Video Conferencing Tools.

Why Learners Prefer CLS as their Training Services provider ?

■ Premium Training Services Accredited from Global Technology Vendors.

■ Best Rated Experts & Certified Trainers in Egypt.

■ Official Training Hours, Practice Labs, Hands-on Learning.

■ CLS Training Classrooms are designed with High Edge PCs and Training Facilities.

■ Return on Training Investment is Guaranteed to boost performance.



• CCNA Course Objectives

- Identify the components of a computer network and describe their basic characteristics
- Understand the model of host-to-host communication
- Describe the features and functions of the Cisco Internetwork Operating System (IOS®) software
- Describe LANs and the role of switches within LANs
- Describe Ethernet as the network access layer of TCP/IP and describe the operation of switches
- Install a switch and perform the initial configuration
- Describe the TCP/IP Internet layer, IPv4, its addressing scheme, and subnetting
- Describe the TCP/IP Transport layer and Application layer
- Explore functions of routing
- Implement basic configuration on a Cisco router
- Explain host-to-host communications across switches and routers
- Identify and resolve common switched network issues and common problems associated with IPv4 addressing
- Describe IPv6 main features and addresses, and configure and verify basic IPv6 connectivity
- Describe the operation, benefits, and limitations of static routing
- Describe, implement, and verify Virtual Local Area Networks (VLANs) and trunks
- Describe the application and configuration of inter-VLAN routing
- Explain the basics of dynamic routing protocols and describe components and terms of Open Shortest Path First (OSPF)
- Explain how Spanning Tree Protocol (STP) and Rapid Spanning Tree Protocol (RSTP) work
- Configure link aggregation using EtherChannel
- Describe the purpose of Layer 3 redundancy protocols
- Describe basic WAN and VPN concepts
- Describe the operation of Access Control Lists (ACLs) and their applications in the network
- Configure Internet access using Dynamic Host Configuration Protocol (DHCP) clients and explain and configure Network Address Translation (NAT) on Cisco routers
- Describe basic Quality of Service (QoS) concepts
- Describe the concepts of wireless networks, which types of wireless networks can be built, and how to use Wireless LAN Controllers (WLCs)
- Describe network and device architectures and introduce virtualization
- Introduce the concept of network programmability and Software-Defined Networking (SDN) and describe smart network management solutions such as Cisco DNA Center™, Software-Defined Access (SD-Access), and Software-Defined Wide Area Network (SD-WAN)
- Configure basic IOS system monitoring tools
- Describe the management of Cisco devices
- Describe the current security threat landscape
- Describe threat defense technologies
- Implement a basic security configuration of the device management plane
- Implement basic steps to harden network devices

• Overview:

CCNA certification proves you have what it takes to navigate the ever-changing landscape of IT. CCNA exam covers networking fundamentals, IP services, security fundamentals, automation and programmability. Designed for agility and versatility, CCNA validates that you have the skills required to manage and optimize today's most advanced networks.

The CCNA training course and exam give you the foundation to take your career in any direction. When

- you certify with Cisco, you are living proof of the standard and rigor that businesses recognize and trust to meet and exceed market demands.

Training:

The Implementing and Administering Cisco Solutions (CCNA) v1.0 course gives you a broad range of fundamental knowledge for all IT careers. Through a combination of lecture, hands-on labs, and self-study, you will learn how to install, operate, configure, and verify basic IPv4 and IPv6 networks. The course covers configuring network components such as switches, routers, and wireless LAN controllers; managing network devices; and identifying basic security threats. The course also gives you a foundation in network programmability, automation, and software-defined networking.

• Audience Profile :

This course is designed for anyone seeking CCNA certification. The course also provides foundational knowledge for all support technicians involved in the basic installation, operation, and verification of Cisco networks.

The job roles best suited to the material in this course are:

- Entry-level network engineer
- Network administrator
- Network support technician
- Help desk technician

• Prerequisites:

Before taking this course, you should have:

- Basic computer literacy
- Basic PC operating system navigation skills
- Basic Internet usage skills