



CISCO TRAINING

CCNA: Implementing and Administering Cisco Solutions v2.1

Master Cisco networking fundamentals and prepare for your CCNA 200-301 exam.

DURATION

40 hours

LEVEL

Beginner

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

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COURSE OVERVIEW

The "CCNA: Implementing and Administering Cisco Solutions v2.1" course is the foundational stepping stone for aspiring network professionals seeking to master the intricacies of modern networking. This comprehensive program, designed by Cisco, equips learners with the essential knowledge and practical skills required to install, operate, configure, and verify basic IPv4 and IPv6 networks. You will delve into core networking concepts, including network access, IP connectivity, IP services, security fundamentals, and automation, all crucial for managing contemporary network infrastructures.

Through a blend of theoretical understanding and hands-on laboratory exercises, participants will gain proficiency in configuring routers and switches, implementing VLANs, setting up static and dynamic routing protocols (like OSPF), and securing network devices using Access Control Lists (ACLs) and port security. The curriculum also introduces vital IP services such as DHCP, NAT, and NTP, alongside an introduction to wireless networking and foundational concepts of network automation and programmability. This holistic approach ensures you are not just prepared for the certification exam but also for real-world networking challenges.

Successfully completing this course and earning the Cisco Certified Network Associate (CCNA) certification significantly enhances your professional credibility and marketability. It validates your capability to handle entry-level to associate-level networking tasks, making you a valuable asset to any organization. This certification opens doors to various IT roles, provides a solid base for advanced Cisco certifications (such as CCNP), and is widely recognized globally, giving your career a significant boost in the competitive IT landscape.

Duration	40 hours
Level	Beginner
Vendor	Cisco
Exam Code	200-301

PREREQUISITES

- Understanding of OSI model
- Basic TCP/IP networking
- Familiarity with network devices (routers, switches)
- Basic command-line interface experience

COURSE CURRICULUM

01 Module 1: Network Fundamentals

- Understanding Network Components and Architectures
- OSI and TCP/IP Models
- Configuring Cisco IOS Devices
- IP Addressing (IPv4 and IPv6) and Subnetting
- Cabling and Network Topologies
- Ethernet Concepts and Operation

02 Module 2: IP Connectivity

- Implementing VLANs and Trunks
- Inter-VLAN Routing Configuration

- Configuring and Verifying Static Routes
- Implementing Dynamic Routing with OSPFv2 (Single-Area)
- Understanding First-Hop Redundancy Protocols (FHRP)
- Troubleshooting IP Connectivity

03 Module 3: IP Services

- Configuring DHCP (Server and Client)
- Implementing Network Address Translation (NAT)
- Understanding and Configuring NTP (Network Time Protocol)
- Utilizing Syslog for Device Monitoring
- Introduction to SNMP for Network Management
- QoS (Quality of Service) Concepts

04 Module 4: Security Fundamentals

- Implementing Switch Port Security
- Configuring Standard and Extended Access Control Lists (ACLs)
- Understanding VPN Concepts (Site-to-Site and Remote Access)
- Layer 2 Security Threats and Mitigation
- Introduction to Wireless Security Protocols (WPA, WPA2, WPA3)
- Configuring and Verifying SSH and Telnet

05 Module 5: Automation and Programmability

- Exploring Network Programmability Fundamentals
- Comparing Traditional vs. Controller-Based Networking
- Understanding REST APIs and HTTP Methods
- Data Formats: JSON and XML
- Interpreting Basic Python Scripts for Network Automation
- Introduction to Configuration Management Tools (e.g., Ansible)

06 Module 6: Wireless LANs

- Understanding Wireless LAN Components (AP, WLC)
- Exploring Wireless LAN Topologies
- Configuring Basic WLAN Settings on an Access Point
- Client Connectivity to a WLAN
- Troubleshooting Basic Wireless Connectivity Issues

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Junior Network Administrator**
- > **NOC (Network Operations Center) Technician**
- > **Entry-Level Network Engineer**

FREQUENTLY ASKED QUESTIONS

Q: What practical, hands-on skills will I gain from the CCNA v2.1 course that are immediately applicable to an entry-level networking role?

This course focuses heavily on practical application. You will gain hands-on experience in configuring Cisco routers and switches from scratch, implementing VLANs, setting up secure remote access via SSH, configuring static and dynamic routing protocols (OSPF), deploying DHCP and NAT services, and applying Access Control Lists (ACLs) for basic network security. These are foundational skills that make you immediately productive in roles like Network Administrator or NOC Technician, capable of managing and troubleshooting common network environments.

Q: How does achieving the CCNA v2.1 certification specifically enhance my career progression and earning potential within the Kenyan IT market?

The CCNA v2.1 certification is globally recognized and highly valued in the Kenyan IT market as proof of foundational networking competence. It significantly enhances your career progression by making you eligible for entry to mid-level roles, distinguishing you from non-certified candidates. Companies actively seek CCNA-certified professionals, often offering competitive salaries due to the validated skill set. This certification also serves as a critical prerequisite and strong foundation for pursuing more advanced and specialized certifications like CCNP, which can further accelerate your career and substantially increase your earning potential.

Q: Are there any recommended prerequisites or prior knowledge I should possess before enrolling in the CCNA v2.1 course to maximize my learning experience?

While the CCNA v2.1 course is designed for beginners, having a basic understanding of computer hardware, operating systems (Windows/Linux navigation), and fundamental networking concepts (what is an IP address, basic internet function) will be beneficial. Familiarity with command-line interfaces (CLIs) can also be helpful but is not strictly required as the course covers Cisco IOS CLI navigation from the ground up. Our instructors are experienced in guiding students from various backgrounds, ensuring everyone can grasp the concepts effectively.

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

10,000+

Professionals Trained

50+

Vendor Certifications

READY TO ENROL?

Take the next step in your technology career.

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