

## What is the CCNA (Cisco Certified Network Associate)?

The [CCNA \(Cisco Certified Network Associate\)](#) is a networking qualification that is recognised worldwide. The certification enables candidates to enhance their skills in routing and switching in order to further their advancement in the field of networking. On completion of the CCNA training course, candidates can gain access to network analyst and first-line support roles. The CCNA training course teaches candidates how to install and control IPv4 and IPv6 networks. Overall, the CCNA training course teaches candidates the skills they need in order to configure, maintain, and overcome issues with networking apparatus. The Cisco Certified Network Associate qualification is taught over a period of 5 days, and candidates will engage in a mixture of classroom teaching and practical activities.

## What are the objectives of the CCNA training course?

By the end of our CCNA course, you will:

Have gained the relevant skills in order to boost your networking career

Be able to provide transferable job skills to any organisation which uses Cisco products

Be able to install, operate and configure a basic IPv4 and IPv6 network.

Be familiar with Cisco networking devices

## Who is the CCNA training course for?

The CCNA certification is designed for individuals seeking a CCNA Routing and Switching certification. This course is also suitable for support technicians involved in the installation, operation and verification of LAN networks. CCNA is intended for career professionals with 1-3 years of experience looking to enhance their skills and hence further their career.

## Why is CCNA a desired qualification?

The CCNA Cisco Certified Network Associate training course is desirable because it enables candidates to enhance their networking skills, and thus access more advanced career roles. The certification confirms that candidates possess relevant networking knowledge to offer the highest standard of IT support.

Also, knowledge learnt from the Cisco Certified Network Associate training course can be applied when using any Cisco products.

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Candidates are required to complete an exam in order to achieve the CCNA qualification. The exam is 90 minutes long and consists of 50-60 questions which vary in format. Skills regarding installing, testing, and operating will be tested. If successful, candidates will become Cisco Certified Network Associates in Routing and Switching.

### **Module 1: Building a Simple Network:**

- Exploring the Functions of Networking
- Understanding the Host-to-Host Communications Model
- Introducing LANs
- Operating Cisco IOS Software
- Starting a Switch
- Understanding Ethernet and Switch Operation
- Troubleshooting Common Switch Media Issues
- Module Summary

### **Module 2: Establishing Internet Connectivity:**

- Understanding the TCP/IP Internet Layer
- Understanding IP Addressing and Subnets
- Understanding the TCP/IP Transport Layer
- Exploring the Functions of Routing
- Configuring a Cisco Router
- Exploring the Packet Delivery Process
- Enabling Static Routing
- Managing Traffic Using ACLs
- Enabling Internet Connectivity
- Module Summary

### **Module 3: Managing Network Device Security:**

- Securing Administrative Access
- Implementing Device Hardening
- Implementing Traffic Filtering with ACLs
- Module Summary

### **Module 4: Introducing IPv6**

- Introducing Basic IPv6
- Understanding IPv6
- Configuring IPv6 Routing
- Module Summary

- Implementing VLANs and Trunks
- Routing Between VLANs
- Using a Cisco Network Device as a DHCP Server
- Troubleshooting VLAN Connectivity
- Building Redundant Switched Topologies
- Improving Redundant Switched Topologies with EtherChannel
- Understanding Layer 3 Redundancy
- Module Summary

#### **Module 6: Troubleshooting Basic Connectivity:**

- Troubleshooting IPv4 Network Connectivity
- Troubleshooting IPv6 Network Connectivity
- Module Summary

#### **Module 7: Wide Area Networks:**

- Understanding WAN Technologies
- Configuring Serial Encapsulation
- Establishing a WAN Connection Using Frame Relay
- Introducing VPN Solutions
- Configuring GRE Tunnels
- Module Summary

#### **Module 8: Implementing an EIGRP-Based Solution**

- Implementing EIGRP
- Troubleshooting EIGRP
- Implementing EIGRP for IPv6
- Module Summary

#### **Module 9: Implementing a Scalable OSPF-Based Solution**

- Implementing OSPF
- Multiarea OSPF IPv4 Implementation
- Troubleshooting Multiarea OSPF
- Examining OSPFv3
- Module Summary

#### **Module 10: Network Device Management:**

- Configuring Network Devices to Support Network Management Protocols
- Managing Cisco Devices

- Licensing
- Module Summary

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