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Sign up

Cisco CCNA Certification Training

ALL-IN-ONE: EXAMINATION INCLUDED IN PRICE

5 days (35 hours)

Presentation

Opt for CCNA certification and make sure you have the skills you need to thrive in the ever-changing field of information technology.
Take up the challenge and stand out as a CCNA-certified network professional.

The exam is made up of several modules including switching, routing, security, virtualization and much more, to prepare you thoroughly.

During our exam preparation course, we'll cover all the relevant points and give you tips on the latest CCNA program updates to help you prepare for the exam.

This Cisco CCNA™ training program will also give you an in-depth perspective on network components, switching and routing concepts, security, automated management, and many other crucial aspects of the field.

Objectives

- Understanding the role and function of network components
- Master the fundamental concepts of IP addressing and subnetting
- Acquire expertise in interface and wiring management
- Familiarize yourself with essential network services

Target audience

- Network support technicians
- System and network administrators

- Network engineers

Prerequisites

- Basic knowledge of information systems management
- Basic knowledge of the PC operating system
- Basic IP address skills

Note: Ambient IT does not own Cisco Certifications™, this certification belongs to Cisco, Inc.

Cisco CCNA™ training program

Network fundamentals

- The role and function of network components
- The different networks
- Classifying different types of network
- TCP/IP
- LAN networks
- Introduction to routers and their role
  - Parameter configuration
  - Parameter check
- Layers 1 and 2
- Firewall and IPS
- Access points
- Controllers
- Endpoints
- Servers
- PoE
- Architectures
  - Two-tier
  - Three-tier
  - Spine-leaf
  - WAN
  - SOHO
  - On premise
  - Cloud

IP addressing and subnetting

- IPv4/IPv6 configuration and subnetting
- IPv6 address types
  - Unicast
  - Anycast
  - Multicast
  - EUI 64
- The need for private IPv4 addressing

- Static routing configuration
- VLANs
- Trunks
- Routing between VLANS
- Check IP settings for client operating systems (Windows, MacOS, Linux)

Interfaces and wiring

- Interface types and wiring
  - Single-mode fiber
  - Multimode fiber
  - Copper
  - Ethernet
  - Point-to-point
- Collisions
- Errors
- Mismatch duplex
- Mismatch speed

Wireless and virtualization

- Description of wireless principles
  - Non-overlapping Wi-Fi channels
    - SSID
    - RF (Radio Frequency)
    - Encryption
- Virtualization fundamentals
  - Server virtualization
  - Containers
  - VRF (Virtual Routing and Forwarding)

Switching

- Description of switching concepts
- Access ports (data and voice)
- Default VLAN
- InterVLAN connectivity
- Configuring and checking interswitch connectivity
- EtherChannel (LACP) configuration and verification (Layer 2/Layer 3)

Wireless networks (WLAN)

- Comparison of Cisco wireless architectures and AP modes
- Description of WLAN infrastructure physical connections
  - AP
  - WLC
  - LAG (Link Aggregation Group)
- Description of AP and WLC management access connections

- Configuring WLAN access components
  - WLAN creation
  - Security settings
  - QoS profile
  - Advanced WLAN settings

Network service

- Configuration and verification of internal source NAT with statics and pools
- Configuring and checking NTP operation in client and server mode
- Role of DHCP and DNS in the network
- SNMP in network operations
- Syslog
- DHCP client and relay configuration and verification
- PHB
- Per-hop behavior (PHB) for QoS
  - Classification
  - Marking
  - Queuing
  - Congestion
  - Policing
  - Shaping
- SSH
- TFTP / FTP on the network

Automation and programmability

- The impact of automation on network management
- Traditional networks with controller-based management
- Controller-based and software-defined architectures
  - Overlay
  - Underlay
  - Fabric
- north-bound and south-bound APIs
- Features of REST-based APIs
  - CRUD
  - HTTP verbs
  - Data encoding
- Configuration management (Puppet, Chef and Ansible)
- Interpret JSON-encoded data

Strategy and methods for exam success Mock

exam

Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology or to

acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.