

CCNA Security At-a-Glance



As the Internet of Everything (IoE) brings new economic and social opportunities to communities throughout the world, the global demand increases for all information and communication technology (ICT) skills. Security and risk management skills are among the most highly sought after skills in networking, and demand continues to grow.

Course Description

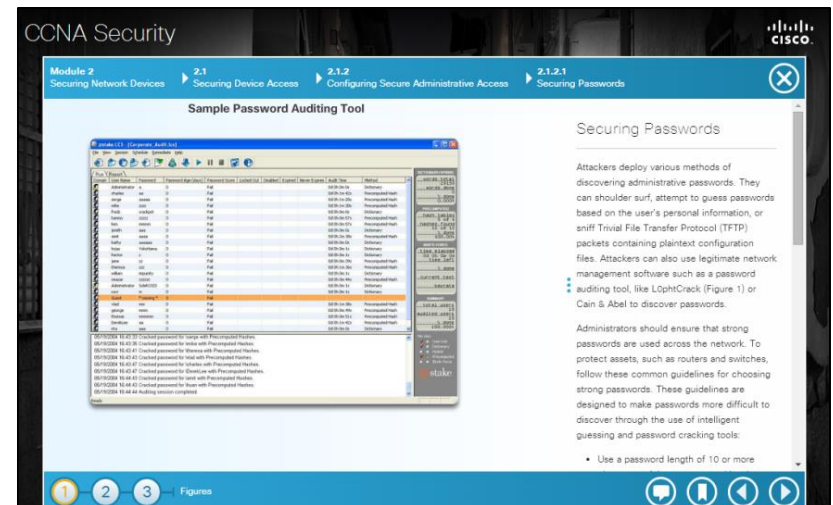
The Cisco Networking Academy® CCNA® Security course provides a next step for individuals who want to enhance their Cisco CCENT® certification-level skill set and help meet the growing demand for network security professionals. The curriculum provides an introduction to the core security concepts and skills needed for the installation, troubleshooting, and monitoring of network devices to maintain the integrity, confidentiality, and availability of data and devices.

CCNA Security offers the following:

- Provides an in-depth, theoretical overview of network security principles as well as the tools and configurations available
- Emphasizes the practical application of skills needed to design, implement, and support network security
- Supports the development of critical thinking and complex problem-solving skills through hands-on labs
- Promotes the exploration of networking security concepts through Cisco® Packet Tracer simulation-based learning activities, and allows students to experiment with network behavior
- Includes innovative assessments that provide immediate feedback to support the evaluation of knowledge and acquired skills

Who Should Enroll

Organizations around the world are experiencing a shortage of qualified candidates with the specialized ICT knowledge and skills needed to administer devices and applications in a secure infrastructure, recognize network vulnerabilities, and mitigate security threats. CCNA Security helps students prepare for in-demand, entry-level security career opportunities and the globally recognized Cisco CCNA



The screenshot displays the CCNA Security course interface. At the top, it shows the course title 'CCNA Security' and the Cisco logo. Below this, a navigation bar indicates the current module: 'Module 2: Securing Network Devices', with sub-sections '2.1: Securing Device Access', '2.1.2: Configuring Secure Administrative Access', and '2.1.2.1: Securing Passwords'. The main content area is divided into two parts. On the left, a 'Sample Password Auditing Tool' window is open, showing a table of password audit results. On the right, a text box titled 'Securing Passwords' provides information about password security, including a list of strong password guidelines.

Device	Username	Password	Age	Complexity	Expiration	Lockout	Control	Weak Points	Auth Type	Method
Router	admin	admin	30	Low	None	None	None	Simple	Local	Local
Switch	admin	admin	30	Low	None	None	None	Simple	Local	Local
Switch	admin	admin	30	Low	None	None	None	Simple	Local	Local
Switch	admin	admin	30	Low	None	None	None	Simple	Local	Local
Switch	admin	admin	30	Low	None	None	None	Simple	Local	Local

Securing Passwords

Attackers deploy various methods of discovering administrative passwords. They can shoulder surf, attempt to guess passwords based on the user's personal information, or sniff Trivial File Transfer Protocol (TFTP) packets containing plaintext configuration files. Attackers can also use legitimate network management software such as a password auditing tool, like LophCrack (Figure 1) or Cain & Abel to discover passwords.

Administrators should ensure that strong passwords are used across the network. To protect assets, such as routers and switches, follow these common guidelines for choosing strong passwords. These guidelines are designed to make passwords more difficult to discover through the use of intelligent guessing and password cracking tools:

- Use a password length of 10 or more

Security certification, which helps students differentiate themselves in the marketplace with specialist skills and advance their careers.

The curriculum is appropriate for the following individuals:

- Students with CCENT-level networking concepts and skills
- College and university-level students seeking career-oriented, entry-level security specialist skills
- IT professionals who want to enhance their core routing and switching skills.
- Current CCENT certification holders who want to expand their skill set and prepare for a career in network security.

Learning Objectives

Students who complete CCNA Security will be able to perform the following tasks:

Chapter	Learning Objectives
1. Modern Network Security Threats	Describe the security threats facing modern network infrastructures
2. Securing Network Devices	Secure Cisco routers
3. Authentication, Authorization and Accounting	Implement AAA on Cisco routers using a local router database and external ACS
4. Implementing Firewall Technologies	Mitigate threats to Cisco routers and networks using ACLs
5. Implementing Intrusion Prevention	Implement secure network design, management and reporting
6. Securing the Local Area Network	Mitigate common Layer 2 attacks
7. Cryptographic Systems	Implement the Cisco IOS firewall feature set
8. Implementing Virtual Private Networks	Implement the Cisco IOS IPS feature set
9. Implementing Cisco the Adaptive Security Appliance (ASA)	Implement a site-to-site VPN
10. Managing a Secure Network	Implement a remote access VPN

Course Availability

The CCNA Security course is delivered through the Cisco NetSpace® learning environment and is available in English. Students who complete this course may also be interested in the NetAcad™ Cisco CCNA® Routing and Switching courses.

About Cisco Networking Academy

Cisco Networking Academy delivers a comprehensive learning experience to help students develop ICT skills for career opportunities, continuing education, and globally recognized career certifications.

To learn more, visit: www.netacad.com.