

CCNP SECURITY



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CISCO CERTIFIED NETWORK PROFESSIONAL

About Infocampus

Infocampus is a community of learners, educators, and industry professionals dedicated to creating a supportive and dynamic learning environment. Since 2009, we have specialized in IT and networking courses for both beginners and professionals, bridging the gap between theory and practice. Our mission is to prepare students for the evolving tech industry, making us a trusted choice for career advancement in technology.

15+ Years of
Expertise

5K+ Successful
Graduates



Key Features

Hands on training for real world application

Highly experienced and skilled faculties

State-of-the-Art Infrastructure

Course completion certificate

Job Assistance

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The Cisco Certified Network Professional (CCNP) Security certification course is designed for IT professionals seeking advanced skills in network security. It covers secure access, VPNs, firewalling, intrusion prevention, and endpoint security, with hands-on experience using Cisco security solutions.

Participants learn to implement and manage security policies, secure networks with Cisco ASA, deploy VPNs, and protect against advanced threats. CCNP Security certification validates expertise in network security technologies, preparing professionals to effectively defend enterprise networks against modern cyber threats

DURATION

2

MONTHS



CCNP Security Infrastructure

Security Basics

- Goals of network security.
- Types of hackers.

Identifying threats

- Virus
- Worms T
- Trojan Horse
- Malware
- Spyware
- Rootkit
- Adware
- Vulnerabilities

Identifying important attacks

- Man in the middle attack
- Denial of service attack
- Phishing attack Spoofing attack
- Sniffing attack
- Social engineering
- Brute force attack

Describe and configure Virtual Private Networks

- VPN basics
- Types of VPNs
- Site to site VPN
- Remote access VPN
- Explain and Configure GRE tunnel
- IPSec VPN overview
- Authentication methods
- Hashing algorithms
- Encryption algorithms
- Symmetric encryption
- Asymmetric encryption
- Negotiation protocols
- Configure IPSec VPN
- Configure Static VTI VPN
- DM VPN overview
- Explain DM VPN phases and components
- Configure DM VPN phase 3
- Configure EIGRP over DM VPN
- Configure OSPF over DM VPN
- Configure Flex VPN

Firepower Threat Defense (FTD)

- Introduction to FTD and FMC
- Difference between ASA and FTD
- Explain ASA models and FTD models
- Install FTD and FMC
- Integrate FTD and FMC
- Explain and configure interfaces and zones
- Configure default routing
- Explain and configure Object types on FTD
- Configure NAT options
- Manual NAT and Auto NAT
- Configure URL filtering on FTD
- Explain and configure FTD policies
- Access control policy
- Pre-filter policy
- Network discovery policy
- Security intelligence
- QOS policy
- SSL decryption policy
- IPS policy File and malware policy
- Configure active passive HA
- Configure transparent mode on FTD
- Configure IPsec VPN on FTD

Identity Service Engine (ISE)

- Introduction to ISE
- Describe ISE functions, such as,
 - Network access control
 - Device administration control
 - Profiling
 - Posture service
 - Guest access
 - BYOD
- Explain AAA function
- Explain AAA protocols RADIUS and TACACS+
- Configure privilege levels on a router
- Configure local AAA on a router
- Install and configure ISE
- Introducing Cisco ISE Policy
- Configure device admin control using ISE and TACACS+
- Explain authentication protocols
 - EAP EAP MD5
 - AP TLS
 - EAP FAST
 - LEAP IEEE 80.2.1x (dot1x) overview
- Configure IEEE 80.2.1x function
- Configure downloadable access list
- Explain and configure mac authentication bypass (MAB)
- Guest access overview Central web authentication
- Change of authorization
- Explain and demonstrate portal types
- Configure guest access (CWA) on ISE and switch

Email Security Appliance (ESA)

- Cisco Email Security Appliance Overview
- SMTP Overview
- POP3
- IMAP
- Configure Mail server, Mail client, and DNS server
- Configure and explain MX record
- Test end to end email function
- Initial configurations on ESA
- Loading license on ESA
- Integrating Mail server and ESA
- Host Access Table Overview
- Recipient Access Table Overview
- Mail flow policy
- Sender group
- Controlling incoming and outgoing emails
- Configure mail policy
- Content Filters Overview
- Content Filter Conditions
- Content Filter Actions
- Configure and test incoming and outgoing content filter
- Monitoring incoming and outgoing mails in CLI

Web Security Appliance (WSA)

- Introduction to WSA
- WSA models
- WSA features
- Installing and configuring WSA
- Explain Proxy Service
- Deploying Proxy Services
- Explicit Forward Mode vs. Transparent Mode
- Configure explicit proxy Mode
- Web Cache Control Protocol
- Web Cache Communication
- Protocol (WCCP) Upstream and Downstream Flow
- Configure transparent proxy mode
- Identification profile
- Access policy
- URL Filtering overview
- Configure URL filtering options on WSA
- Category based filtering
- Custom URL filter options



Cloud

- Public, private, hybrid, and community clouds
- Cloud service models: SaaS, PaaS, IaaS
- Compare the customer vs. provider security responsibility for the different cloud service models
- Patch management in the cloud
- Security assessment in the cloud
- Explain and configure Cisco Umbrella
- Security options in Umbrella

Network Monitoring

- Describe and configure monitoring options
- Syslog server
- SNMP version 2 and version 3 overview
- Configure SNMPv2 and SNMPv3 on routers
- SPAN and RSPAN overview
- Configure SPAN and RSPAN on a switch
- NetFlow overview
- Configure NetFlow on a router
- Cisco StealthWatch overview
- Install and configure StealthWatch management console
- Install and configure flow collector
- Integrate SMC and FC
- Test and analyze NetFlow traffic

Software defined network (SDN)

- SDN overview
- Control plane and data plane
- Traditional vs Software defined network
- Describe application programming interface (API), and its purpose
- SDN controllers
- SDN architecture
- Introduce APIC, APIC-EM, DNA center
- Describe southbound API and northbound API
- SD-Access overview
- SD-WAN overview
- Explain the advantages of SD-WAN over a traditional WAN





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