

# CompTIA Sec+ SY0-401, Part 2 of 8: Security Services [Deprecated/Replaced]

page 1

**Meet the expert:** Ryan Hendricks is an experienced instructor who teaches networking and security courses to IT professionals throughout the nation. He currently has the CompTIA Certified Technical Trainer (CTT+ Classroom) and the Cisco Certified Academy Instructor (CCAI) credentials. He holds certifications from (ISC)2, EC-Council, CompTIA, and Cisco. When not on the podium instructing, he delves into IT books, always looking to learn more and keep up with the latest security topics.

**Prerequisites:** This course assumes that the user has working knowledge of networks and networking. Ideally, the user should have their CompTIA Network+ certification, but can be replaced with networking experience.

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**Course description:** In this course we will discuss the OSI and TCP/IP model. We will discuss the vast number of applications found on networks and how they communicate. We will discuss their uses, their security, and as a security practitioner how you can utilize them to increase security on the network. We will finish this course by discussing wireless communication and the inherent risk with using that as our communication means. This course will cover the CompTIA Security+ objectives 1.4 and 1.5.

## Course outline:

### Models

- Introduction
- OSI Model
- Layer 7 - Application
- Layer 6 - Presentation
- Layer 5 - Session
- Layer 4 - Transport
- Layer 3 - Network
- Layer 2 - Data-Link
- Layer 1 - Physical
- TCP/IP
- OSI & TCP/IP, Cont.
- OSI & TCP/IP
- Summary

### Protocols

- Introduction
- Fibre Channel
- Fibre Channel over Ethernet
- iSCSI
- IPv4
- IPv6
- ICMP
- ICMP Types & Codes
- ICMP Types & Codes, Cont.
- IP Security
- IPsec, Cont.
- Domain Name System (DNS)

- DNS Authoritative Name Server
- DNS Records
- Start of Authority
- DNS Queries
- Demo: DNS Information
- Demo: More DNS Information
- Summary

### Protocols 2

- Introduction
- SNMP
- SNMP Messages
- SNMP Versions
- TELNET
- Remote Desktop Protocol
- File Transfer Protocol (FTP)
- SFTP & SCP
- Trivial File Transfer Protocol
- Hypertext Transport Protocol
- Secure Sockets Layer
- Transport Layer Security
- HTTP over SSL
- File Transfer Protocol Secure
- NetBIOS
- Simple Mail Transfer Protocol
- Post Office Protocol
- IMAP
- Demo: Protocol Security

### Summary

### Wireless Protocols

- Introduction
- Wireless Communication
- Wired Equivalent Privacy (WEP)
- 802.11i
- WPA
- WPA2
- Encryption Troubleshooting
- EAP
- Protected EAP
- Authentication Troubleshooting
- MAC Filtering
- Service Set Identifier
- SSID Broadcasting
- Antenna Placement
- RF Degradation
- Power Level Controls
- Antenna Placement Example
- Antenna Placement Example, Cont.
- Site Survey
- Captive Portals
- VPNs
- Summary