

# 1001-02: CompTIA A+ Certification, Part 12 of 13: Network Security

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**Meet the expert:** Patrick Loner has certifications for MCSA, MCSE, MCITP, A+, Network+, Security+, and more. He has been working as a Microsoft Certified Trainer, network administrator, and network consultant for over ten years. He has over a decade of experience working with and teaching about Windows networks with client and server operating systems. He has guided many students toward Microsoft and CompTIA certifications. Most recently, he has worked as a freelance trainer and network consultant specializing in Windows Server 2008 and Microsoft Exchange 2007 and Exchange 2010 implementations, design, and upgrades. Patrick continues to branch out now working with and training on Windows Server 2012, Windows 8, Exchange 2013, and System Center Configuration Manager 2012.

**Prerequisites:** The course assumes that a student has a basic familiarity with computer operation.

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**Course description:** In this course for the CompTIA A+ 1001-1002 exam, we'll take a look at Viruses, Trojans, worms, and distributed denial of service attacks which are some of the most significant threats in networking. Next, we'll explore these and other threats and vulnerabilities, including the basic security of file and folder permissions. Finally, we'll learn the basics of user authentication and extended security through the use of encryption such as EFS and bit locker.

## Course outline:

### Security Threats, Vulnerabilities, and Prevention

- Introduction
- Security Threats, Vulnerabilities, and Prevention
- Threats
- Network Threats
- Zero-Day Attacks and Zombies
- Password Attacks
- Noncompliant Systems
- Malicious Code Attacks
- Types of Malicious Code
- Physical Access Restrictions
- Physical Prevention Mechanisms
- Virtual Private Networks
- Data Loss Prevention
- System Hardening
- Smart Cards
- Summary

- BitLocker
- User Account Control
- Summary

### Troubleshooting OS Security

- Introduction
- Troubleshooting OS Security Issues
- Common Symptoms
- Troubleshooting Tools
- Summary

### Configure Basic Windows Security Settings

- Introduction
- Configuring Basic Windows Security Settings
- Authentication Process
- Credentials
- Permissions
- Permissions Rules
- Encrypting File System
- Encrypting Process