



Skill Set Alignment Fundamentals of Network Security

This document lists the skills that students learn in the Fundamentals of Network Security course. This security curriculum helps prepare students for the Cisco Firewall Specialist and CompTIA Security+ certification exams. Employers, Academies, and students may use this document to communicate current knowledge, or to identify skills demonstrated at a work setting. Another valuable use of this information is as a list of proficiencies expected through work experience.

Name of Business/Employer

Name of Student

Street Address

Street Address

City State Zip

City State Zip

Phone

Phone

Employment Supervisor's Name and Position

General Security Concepts

- Access Control
- Authentication
- Non-essential Services and Protocols - Disabling unnecessary systems / process / programs
- Attacks
- Malicious Code
- Social Engineering
- Auditing - Logging, system scanning

Communication Security

- Remote Access
- Email
- Web
- Directory - Recognition not administration
- File Transfer
- Wireless

Infrastructure Security

- Devices
- Media
- Security Topologies
- Intrusion Detection
- Security Baselines

Basics of Cryptography

- Algorithms
- Concepts of Using Cryptography

- PKI
- Standards and Protocols
- Key Management/Certificate Lifecycle
- Suspension
- Recovery
- Renewal
- Destruction
- Key Usage

Operational and Organizational Security

- Physical Security
- Disaster Recovery
- Business Continuity
- Policy and Procedures
- Privilege Management
- Forensics (Awareness, conceptual knowledge and understanding)
- Risk Identification
- Education - Training of end users, executives and HR
- Documentation

Cisco Security Solutions

- Understand and configure basic switch and router security.
- Demonstrate advanced ACL and filtering configuration on IOS and PIX Firewalls.
- Configure the AAA service on Cisco routers and PIX Firewalls.
- Install, configure and monitor Cisco Secure Access Control Server.
- Configure static and dynamic network address translation on IOS and PIX Firewalls.
- Configure site-to-site VPNs on Cisco routers and PIX Firewalls.
- Configure remote access VPNs between Cisco VPN Clients, IOS and PIX Firewalls.
- Configure VPNs using pre-shared keys and digital certificates.
- Configure intrusion detection and syslog monitoring on the IOS and PIX Firewalls.
- Understand and configure failover for PIX Firewalls and advanced protocol handling.
- Perform image upgrade and password recovery on IOS and PIX Firewalls.
- Configure secure remote access to IOS and PIX Firewalls using SSH.
- Understand the basic concepts of enterprise security management using SNMP or CiscoWorks VMS.

Copyright © 2003 Cisco Systems, Inc. All rights reserved. Cisco, Cisco IOS, Cisco Systems, and the Cisco Systems logo are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and certain other countries. All other trademarks mentioned in this document or Web site are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0108R)