



Securing Networks with ASA Fundamentals

Length
5 days

Format
Lecture/lab

Version
1.0

Course Description

The Cisco ASA 5500 Series Adaptive Security Appliance delivers converged firewall, IPS, network antivirus, and VPN services. As a key component of the Cisco Self-Defending Network, it provides proactive threat mitigation that stops attacks before they spread, controls network activity and application traffic, and delivers flexible VPN connectivity.

This task-oriented course teaches the knowledge and skills needed to configure, maintain, and operate Cisco ASA 5500 Series Adaptive Security Appliances.

Who Should Attend

This course is designed for anyone tasked with implementing or maintaining a secure network using Cisco ASA firewalls. Candidates seeking the Cisco CCSP security certification must also take this course.

Recommended Prerequisites

- CCNA certification or equivalent knowledge
- Basic knowledge of the Windows operating system
- Securing Cisco Network Devices (SND)

Related Courses

- Securing Cisco Network Devices (SND)

SNAF

Learning Objectives

After completing this course, you will be able to:

- Identify the Cisco ASA and PIX security appliance models
- Explain the Cisco ASA security appliance licensing options
- Configure the security appliance for basic network connectivity
- Configure NAT
- Configure ACLs and content filtering
- Configure object grouping
- Configure switching and routing functionality
- Define, configure, and monitor AAA
- Configure a modular policy
- Configure advanced protocol handling
- Configure Threat Detection
- Configure Site-to-Site VPNs
- Configure Remote-Access VPNs
- Configure SSL VPNs
- Configure Transparent Firewall Mode
- Configure the security appliance to support multiple contexts
- Configure failover
- Secure and upgrade system access



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Course Outline

Lesson 1: Introducing Cisco Security Appliance Technology and Features

Firewalls
Security Appliance Essentials

Lesson 2: Introducing the Cisco ASA and PIX Security Appliance Families

Models and Features of Cisco Security Appliances
Cisco ASA Security Appliance Licensing

Lesson 3: Getting Started with Cisco Security Appliances

User Interface
File Management
Security Appliance Security Levels
Cisco ASDM Essentials and Operating Requirements
Preparing to Use Cisco ASDM
Navigating Cisco ASDM Windows

Lab: Prepare to Use Cisco ASDM to Configure the Security Appliance

Lesson 4: Configuring a Security Appliance

Basic Security Appliance Configuration
Examining Security Appliance Status
Time Setting and NTP Support
Syslog Configuration

Lab: Configure the Security Appliance with Cisco ASDM

Lesson 5: Configuring Translations and Connection Limits

Transport Protocols
Understanding NAT
Understanding PAT
Static Translations
TCP SYN Cookies and Connection Limits
Connections and Translations

Lab: Configure Translations

Lesson 6: Using ACLs and Content Filtering

ACL Configuration
Malicious Active Code Filtering
URL Filtering
Packet Tracer

Lab: Configure ACLs

Lesson 7: Configuring Object Grouping

Essentials of Object Grouping
Configuring and Using Object Groups

Lab: Configure Object Groups

Lesson 8: Switching and Routing on Cisco Security Appliances

VLAN Capabilities
Static Routing
Dynamic Routing

Lesson 9: Configuring AAA for Cut-Through Proxy

Introduction to AAA
Configuring the Local User Database
Installation of Cisco Secure ACS for Windows 2000
Cut-Through Proxy Authentication Configuration
Authentication Prompts and Timeouts
Authorization Configuration
Accounting Configuration

Lab: Configure AAA on the Security Appliance Using Cisco Secure ACS for Windows

Lesson 10: Configuring the Cisco Modular Policy Framework

Modular Policy Framework Overview
Class Map Overview
Policy Map Overview
Configuring Modular Policies with Cisco ASDM
Configuring a Policy for Management Traffic
Displaying Modular Policy Framework Components



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Lesson 11: Configuring Advanced Protocol Handling

Advanced Protocol Handling
Protocol Application Inspection
Multimedia Support

Lab: Configure Advanced Protocol Inspection on the Security Appliance

Lesson 12: Configuring Threat Detection

Threat Detection Overview
Basic Threat Detection
Scanning Threat Detection
Configuring and Viewing Threat Detection Statistics

Lab: Configure Threat Detection on the Security Appliance

Lesson 13: Configuring Site-to-Site VPNs Using Pre-Shared Keys

Secure VPNs
How IPsec Works
Preparing to Configure an IPsec VPN
Configuring a Site-to-Site VPN Using Pre-Shared Keys
Modifying the Site-to-Site VPN Configuration
Test and Verify VPN Configuration

Lab: Configure Security Appliance Site-to-Site VPN

Lesson 14: Configuring Security Appliance

Remote-Access VPNs
Introduction to Cisco Easy VPN
Overview of Cisco VPN Client
Configuring Remote-Access VPNs
Configuring Users and Groups

Lab: Configure a Secure VPN Using IPsec Between a Security Appliance and a Cisco VPN Client

Lesson 15: Configuring the Cisco ASA Security Appliance for SSL VPN

SSL VPN Overview
Using the SSL VPN Wizard to Configure Clientless SSL VPN
Verifying Clientless SSL VPN Operations

Lab: Configure the Security Appliance to Provide Secure Clientless SSL VPN Connectivity

Lesson 16: Configuring Transparent Firewall Mode

Transparent Firewall Mode Overview
Traversing a Security Appliance in Transparent Mode
Configuring Transparent Firewall Mode
Monitoring and Maintaining Transparent Firewall Mode

Lab: Configure Security Appliance Transparent Firewall

Lesson 17: Configuring Security Contexts

Security Context Overview
Enabling Multiple Context Mode
Configuring Security Contexts
Managing Security Contexts

Lesson 18: Configuring Failover

Understanding Failover
Configuring Redundant Interfaces
Active/Standby LAN-Based Failover Configuration
Active/Active Failover Configuration
Remote Command Execution

Lab: Configure LAN-Based Active/Standby Failover

Lab: Configure LAN-Based Active/Active Failover

Lesson 19: Managing the Security Appliance

Managing System Access

Configuring Command Authorization
Managing Configurations
Managing Images and Activation Keys

Lab: Manage the Security Appliance



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