

Securing Networks with ASA Foundations

Price: \$2,995

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Length: 35 Hours (5 days)

Introduction: *Securing Networks with ASA Fundamentals (SNAF)* is a five-day, instructor-led, lab-intensive course. This task-oriented course teaches the knowledge and skills needed to configure, maintain, and operate Cisco ASA 5500 Series Adaptive Security Appliances.

Prerequisites:

Students taking this course should have the following skills:

- Skills & knowledge equivalent to Interconnecting Cisco Networking Devices Part 1 & Part 2
- Working knowledge of the Windows operating system
- Familiarity with networking and security terms and concepts

Course Materials:

Students will be provided with the following software for use in the classroom:

Certification lesson guides, workbooks

The above mentioned materials are yours to keep.

Objectives:

After completing this course, students will be able to:

- Explain the functions of the three types of firewalls used to secure today's computer networks.
- Describe the technology and features of Cisco security appliances.
- Explain how each appliance protects network devices from attacks and why each is an appropriate choice for the example network.
- Bootstrap the security appliance, prepare the security appliance for configuration via the Cisco Adaptive Security Device Manager (ASDM), and launch and navigate ASDM.
- Use ASDM and the CLI to perform essential security appliance configuration.
- Use ASDM to configure dynamic and static address translations in the security appliance.
- Use ASDM to configure switching and routing on the security appliance.
- Use ASDM to configure access control lists, filter malicious active codes, and filter URLs to meet the requirements of the security policy.
- Use the packet tracer for troubleshooting.
- Use ASDM to configure object groups that meet the requirements of the security policy.
- Use ASDM to configure AAA as needed to meet the requirements of the security policy.
- Use ASDM to configure a modular policy that supports the security policy and to configure protocol inspection to meet the requirements of the security policy.
- Use ASDM and the CLI to configure threat detection to meet the requirements of the security policy.
- Use ASDM to configure the security appliance to support a site-to-site VPN that meets the requirements of the security policy.
- Use ASDM to configure the security appliance to provide secure connectivity using remote access VPNs.
- Configure the security appliance to run in transparent firewall mode as needed to meet the requirements of the security policy.
- Enable, configure, and manage multiple contexts as needed to meet the requirements of the security policy and monitor and manage an installed security appliance.
- Select and configure the type of failover that best suits the network topology.



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Course Outline

I. Introducing Cisco Security Appliance Technology and Features

- A. Firewalls
- B. Security Appliance Overview

II. Introducing the Cisco ASA and PIX Security Appliance Families

- A. Models and Features of Cisco Security Appliances
- B. ASA Licensing

III. Getting Started with Cisco Security Appliances

- A. User Interface
- B. File Management
- C. Security Appliance Security Levels ASDM Overview and Operating Requirements
- D. Preparing to Use ASDM
- E. Navigating ASDM Windows

III. PC Technician Professional Best Practices

- A. Tools of the trade
- B. Electrical safety
- C. Environmental safety and materials handling

IV. Configuring a Security Appliance

- A. Basic Security Appliance Configuration
- B. Examining Security Appliance Status
- C. Time Setting and NTP Support
- D. Syslog Configuration

V. Configuring Translations and Connection Limits

- A. Transport Protocols
- B. Network Address Translation
- C. Port Address Translation
- D. Static Translations
- E. SYN Cookies and Connection Limits
- F. Connections and Translations

VI. Using ACLs and Content Filtering

- A. ACLs
- B. Malicious Active Code Filtering
- C. URL Filtering
- D. Packet Tracer

VII. Configuring Object Grouping

- A. Overview of Object Grouping
- B. Configuring Object Groups and Using Them in ACLs

VIII. Switching and Routing on Cisco Security Appliances

- A. VLAN Capabilities
- B. Static Routing
- C. Dynamic Routing

IX. Configuring AAA for Cut-Through Proxy

- A. Introduction to AAA
- B. Configuring the Local User Database
- C. Installing Cisco Secure ACS for Windows
- D. Cut-Through Proxy Authentication Configuration
- E. Authentication Prompts and Timeouts
- F. Authorization Configuration
- G. Accounting Configuration

X. Configuring the Cisco Modular Policy Framework

- A. Modular Policy Framework Overview
- B. Class Map Overview
- C. Policy Map Overview
- D. Using ASDM to Configure a Modular Policy
- E. Configuring a Management Policy
- F. Displaying Modular Policy Framework Commands

XI. Configuring Advanced Protocol Handling

- A. Advanced Protocol Handling
- B. Protocol Application Inspection
- C. Multimedia Support

XII. Configuring Threat Detection

- A. Threat Detection Overview
- B. Basic Threat Detection
- C. Scanning Threat Detection
- D. Configuring and Viewing Threat Detection Statistics

XIII. Configuring Site-to-Site VPNs Using Pre-Shared Keys

- A. Secure VPNs
- B. How IPsec Works
- C. Prepare to Configure an IPsec VPN
- D. Configuring a Site-to-Site VPN Using Pre-shared Keys
- E. Modifying the Site-to-Site VPN Configuration
- F. Test and Verify VPN Configuration



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XIV. Configuring Security Appliance Remote-Access VPNs

- A. Introduction to Cisco Easy VPN
- B. Overview of Cisco VPN Client
- C. Configuring Remote Access VPNs
- D. Configuring Users and Groups

XV. Configuring the Cisco ASA Security Appliance for SSL VPN

- A. SSL VPN Overview
- B. Using the SSL VPN Wizard to Configure Clientless SSL VPN
- C. Verifying Clientless SSL VPN Operations

XVI. Configuring Transparent Firewall Mode

- A. Transparent Firewall Mode Overview
- B. How Data Traverses a Security Appliance in Transparent Mode
- C. Configuring Transparent Firewall Mode
- D. Monitoring and Maintaining Transparent Firewall Mode

XVII. Configuring Security Contexts

- A. Security Context Overview
- B. Enabling Multiple Context Mode
- C. Configuring Security Contexts
- D. Managing Security Contexts

XVIII. Configuring Failover

- A. Understanding Failover
- B. Configuring Redundant Interfaces
- C. LAN-Based Active/Standby Failover Configuration
- D. Active/Active Failover Configuration
- E. Remote Command Execution

XIX. Managing the Security Appliance

- A. Managing System Access
- B. Configuring Command Authorization
- C. Managing Configurations
- D. Managing Images and Activation Keys