

## SNAA - Securing Networks with ASA Advanced

### Course Outline

#### 1. Advanced ASA NAT

- Applying NAT 0 and Policy NAT
  - ACLs
  - NAT
  - Translation Behavior
  - NAT Exemption
  - Policy NAT
  - Verify and Troubleshoot

#### 2. Advanced Protocol Handling

- Applying the Cisco Modular Policy Framework
  - Modular Policy Framework Overview
  - Configuring the Modular Policy Framework
  - Configuring a Layer 7 Class Map
  - Configuring a REGEX Class Map
  - Configuring a Layer 7 Policy Map
  - Verifying the Modular Policy Framework Configuration
- Handling Advanced Protocol
  - Protocol Inspection Overview
  - FTP Inspection
  - HTTP Inspection
  - Instant Messaging Inspection
  - ESMTP Inspection
  - DNS Inspection
  - ICMP Inspection
  - Verifying Protocol Inspection

#### 3. Dynamic Routing and Switching

- Switching with VLANs
  - ASA VLAN Operations
  - VLAN Configuration
  - Configuring VLANs on the ASA 5505
  - Verify VLANs
- Routing with Dynamic Protocols
  - Dynamic vs. Static Routing
  - RIP
  - OSPF
  - EIGRP
  - Redistribution
  - Verification and Troubleshooting

#### 4. IPsec VPNs

- Understanding IPsec and Digital Certificates
  - What IPsec Is
  - IPsec Operation
  - Digital Certificates and Public Key Cryptography
  - Certificates and Scalability
  - Certificate Enrollment Process
  - Validating the Certificate
  - Certificate Revocation Lists
  - Security Appliance Certificate Enrollment Support
  - Key Pairs and Trustpoints
- Implementing Site-to-Site VPNs with Digital Certificates
  - Site-to-Site VPNs
  - Configuring CA Certificates
  - Site-to-Site IPsec Connection Profiles
  - Modifying Certificate to Connection Mapping
  - Hub and Spoke
  - Site-to-Site Redundancy
  - Verifying Site-to-Site VPNs
  - Troubleshooting Site-to-Site VPNs
- Configuring the Cisco VPN Client
  - Cisco VPN Client
  - Client Installation
  - Digital Certificates with Cisco VPN Client
  - Connection Entry
  - Advanced Options
  - Verify and Troubleshoot Client Configuration
- Implementing Remote Access VPNs with Digital Certificates
  - Remote Access VPNs
  - Configuring an ASA for Remote Access
  - Installing ASA Certificates
  - Defining a Remote Access Address Pool
  - User Policy Attribute Inheritance
  - Configuring an IPsec Connection Profile
  - Configuring the Certificate to Connection Profile Policy
  - Verifying Remote Access VPNs
  - Troubleshooting Remote Access VPNs
- Configuring Advanced Remote Access Features and Policy
  - Load Balancing
  - Reverse Route Injection
  - Backup Servers
  - Intra-Interface VPN Traffic
  - NAT Transparency
  - Client Update
  - Split Tunneling
  - Personal Firewalls
- Configuring the ASA 5505 as an Easy VPN Hardware Client
  - Introduction to Cisco Easy VPN
  - Cisco Easy VPN Server Policy
  - Easy VPN Hardware Client
- IPsec VPNs and QoS
  - QoS Overview

- ASA QoS
- Configuring QoS for VPNs

## 5. SSL VPNs

- SSL VPN Technology Overview
  - SSL Overview
  - Clientless SSL VPN
  - Cisco Secure Desktop (CSD)
- Configuring Clientless SSL VPNs
  - Configuring Clientless SSL VPN
  - Verifying Clientless SSL VPN Operation
  - Configuring Port-Forwarding SSL VPN
  - Verifying Port-Forwarding SSL VPN
  - Configuring Additional SSL VPN Features
  - Troubleshooting Clientless and Port-Forwarding SSL VPNs
- Configuring Full Network Access SSL VPNs
  - Cisco Full Network Access SSL VPN Overview
  - Configuring Cisco AnyConnect SSL VPN
  - Verifying Cisco AnyConnect SSL VPN Operation
  - Configuring Advanced Features for the Cisco AnyConnect SSL VPN Client
  - Configuring Certificate-Based Authentication for AnyConnect SSL VPN
  - Troubleshooting Cisco AnyConnect SSL VPN Client Operation
- Cisco Secure Desktop
  - Cisco Secure Desktop Overview
  - Cisco Secure Desktop Interoperability
  - Preparing the ASA for Cisco Secure Desktop
- Securing the Desktop with CSD and DAP
  - CSD Workflow
  - Pre-Login Assessment
  - Secure Session
  - Cache Cleaner
  - Host Emulation and Keystroke Logger Detection
  - Host Scan
  - Dynamic Access Policy
  - DAP Testing

## 6. Security Services Modules

- Examining the SSMs
  - Business Challenges
  - SSMs
  - CSC-SSM
  - AIP-SSM
  - AIP-SSM or CSC-SSM
- CSC-SSM: Getting Started
  - CSC-SSM Overview
  - CSC-SSM SW Loading
  - Initial CLI CSC Configuration
  - Initial Configuration of the CSC-SSM using CSC Setup Wizard from ASDM
- AIP-SSM: Getting Started

- AIP-SSM Overview
- AIP-SSM SW Loading
- Initial IPS ASDM Configuration
- Configure an IPS Security Policy