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**Learning Style: On Demand**

**Provider: Cisco**

**Difficulty: Intermediate**

**Course Duration: 40 Hours**

## **Securing Email with Cisco Email Security Appliance (SESA) v3.0 - On Demand**



### **Course Information**

#### **About this course:**

This course will teach you how to deploy and use Cisco Email Security Appliance

after which you can establish protection for your email systems against attacks like phishing, business email compromise, and ransomware. You will also be able to streamline email security policy management for your business.

Taking you through hands-on learning experience, the course provides you with the key capabilities such as spam blocking, advanced malware protection, anti-virus protection, outbreak filtering, encryption, quarantines, and data loss prevention. You will be equipped with the knowledge to implement, troubleshoot, and administer Cisco Email Security Appliance.

Upon completing this course, you will be fully prepared to take the Securing Email with Cisco Email Security Appliance (300-720 SESA) exam, passing which will lead to CCNP Security and the Certified Specialist - Email Content Security certifications.

## **Course Objective:**

After taking this course, you should be able to:

- Use mail policies
- Use content filters
- Use message filters to enforce email policies
- Prevent data loss
- Describe and administer the Cisco Email Security Appliance (ESA)
- Control sender and recipient domains
- Control spam with Cisco Talos SenderBase and anti-spam
- Use anti-virus and outbreak filters
- Encrypt email
- Use system quarantines and delivery methods
- Perform centralized management using clusters
- Perform Lightweight Directory Access Protocol (LDAP) queries
- Authenticate Simple Mail Transfer Protocol (SMTP) sessions
- Authenticate email
- Test and troubleshoot

## **Audience:**

- Network or security technicians
- Network managers
- System designers
- Cisco integrators and partners
- Security engineers
- Security administrators
- Security architects
- Operations engineers
- Network engineers
- Network administrators

## **Prerequisite:**

Before attending this course, you should be knowing about:

- TCP/IP services, including Domain Name System (DNS), Secure Shell (SSH), FTP, Simple Network Management Protocol (SNMP), HTTP, and HTTPS
- IP routing with experience

You should have one or more of the following basic technical competencies to fully benefit from this course:

- Cisco Networking Academy letter of completion (CCNA 1 and CCNA 2)
- Windows expertise: Microsoft [Microsoft Specialist, Microsoft Certified Solutions Associate (MCSA), Microsoft Certified Systems Engineer (MCSE)], CompTIA (A+, Network+, Server+)
- Cisco certification (Cisco CCENT certification or higher)
- Relevant industry certification [International Information System Security Certification Consortium ((ISC)<sup>2</sup>), Computing Technology Industry Association (CompTIA) Security+, International Council of Electronic Commerce Consultants (EC-Council), Global Information Assurance Certification (GIAC), ISACA]

## **Course Outline:**

### **Describing the Cisco Email Security Appliance**

Cisco Email Security Appliance Overview  
Technology Use Case  
Cisco Email Security Appliance Data Sheet  
SMTP Overview  
Email Pipeline Overview  
Installation Scenarios  
Initial Cisco Email Security Appliance Configuration  
Centralizing Services on a Cisco Content Security Management Appliance (SMA)  
Release Notes for AsyncOS 11.x

### **Administering the Cisco Email Security Appliance**

Distributing Administrative Tasks  
System Administration  
Managing and Monitoring Using the Command Line Interface (CLI)  
Other Tasks in the GUI  
Advanced Network Configuration  
Using Email Security Monitor  
Tracking Messages  
Logging

### **Controlling Sender and Recipient Domains**

Public and Private Listeners

- Configuring the Gateway to Receive Email
- Host Access Table Overview
- Recipient Access Table Overview
- Configuring Routing and Delivery Features

## **Controlling Spam with Talos SenderBase and Anti-Spam**

- SenderBase Overview
- Anti-Spam
- Managing Graymail
- Protecting Against Malicious or Undesirable URLs
- File Reputation Filtering and File Analysis
- Bounce Verification

## **Using Anti-Virus and Outbreak Filters**

- Anti-Virus Scanning Overview
- Sophos Anti-Virus Filtering
- McAfee Anti-Virus Filtering
- Configuring the Appliance to Scan for Viruses
- Outbreak Filters
- How the Outbreak Filters Feature Works
- Managing Outbreak Filters

## **Using Mail Policies**

- Email Security Manager Overview
- Mail Policies Overview
- Handling Incoming and Outgoing Messages Differently
- Matching Users to a Mail Policy
- Message Splintering
- Configuring Mail Policies

## **Using Content Filters**

- Content Filters Overview
- Content Filter Conditions
- Content Filter Actions
- Filter Messages Based on Content
- Text Resources Overview
- Using and Testing the Content Dictionaries Filter Rules
- Understanding Text Resources
- Text Resource Management
- Using Text Resources

## **Using Message Filters to Enforce Email Policies**

- Message Filters Overview
- Components of a Message Filter
- Message Filter Processing

- Message Filter Rules
- Message Filter Actions
- Attachment Scanning
- Examples of Attachment Scanning Message Filters
- Using the CLI to Manage Message Filters
- Message Filter Examples
- Configuring Scan Behavior
- Preventing Data Loss
- Overview of the Data Loss Prevention (DLP) Scanning Process
- Setting Up Data Loss Prevention
- Policies for Data Loss Prevention
- Message Actions
- Updating the DLP Engine and Content Matching Classifiers

## **Using LDAP**

- Overview of LDAP
- Working with LDAP
- Using LDAP Queries
- Authenticating End-Users of the Spam Quarantine
- Configuring External LDAP Authentication for Users
- Testing Servers and Queries
- Using LDAP for Directory Harvest Attack Prevention
- Spam Quarantine Alias Consolidation Queries
- Validating Recipients Using an SMTP Server

## **SMTP Session Authentication**

- Configuring AsyncOS for SMTP Authentication
- Authenticating SMTP Sessions Using Client Certificates
- Checking the Validity of a Client Certificate
- Authenticating User Using LDAP Directory
- Authenticating SMTP Connection Over Transport Layer Security (TLS)
- Using a Client Certificate
- Establishing a TLS Connection from the Appliance
- Updating a List of Revoked Certificates

## **Email Authentication**

- Email Authentication Overview
- Configuring DomainKeys and DomainKeys Identified Mail(DKIM) Signing
- Verifying Incoming Messages Using DKIM
- Overview of Sender Policy Framework(SPF) and SIDF Verification
- Domain-based Message Authentication Reporting and Conformance (DMARC) Verification
- Forged Email Detection

## **Email Encryption**

- Overview of Cisco Email Encryption

- Encrypting Messages
- Determining Which Messages to Encrypt
- Inserting Encryption Headers into Messages
- Encrypting Communication with Other Message Transfer Agents (MTAs)
- Working with Certificates
- Managing Lists of Certificate Authorities
- Enabling TLS on a Listener's Host Access Table (HAT)
- Enabling TLS and Certificate Verification on Delivery
- Secure/Multipurpose Internet Mail Extensions (S/MIME) Security Services

## **Using System Quarantines and Delivery Methods**

- Describing Quarantines
- Spam Quarantine
- Setting Up the Centralized Spam Quarantine
- Using Safelists and Blocklists to Control Email Delivery Based on Sender
- Configuring Spam Management Features for End Users
- Managing Messages in the Spam Quarantine
- Policy, Virus, and Outbreak Quarantines
- Managing Policy, Virus, and Outbreak Quarantines
- Working with Messages in Policy, Virus, or Outbreak Quarantines
- Delivery Methods

## **Centralized Management Using Clusters**

- Overview of Centralized Management Using Clusters
- Cluster Organization
- Creating and Joining a Cluster
- Managing Clusters
- Cluster Communication
- Loading a Configuration in Clustered Appliances
- Best Practices

## **Testing and Troubleshooting**

- Debugging Mail Flow Using Test Messages: Trace
- Using the Listener to Test the Appliance
- Troubleshooting the Network
- Troubleshooting the Listener
- Troubleshooting Email Delivery
- Troubleshooting Performance
- Web Interface Appearance and Rendering Issues
- Responding to Alerts
- Troubleshooting Hardware Issues
- Working with Technical Support

## **References**

- Model Specifications for Large Enterprises
- Model Specifications for Midsize Enterprises and Small-to-Midsize

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