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**Learning Style: Virtual Classroom**

**Technology: Cisco**

**Difficulty: Intermediate**

**Course Duration: 3 Days**

## Securing Email with Cisco Email Security Appliance v3.0 (SESAv3)



### About this course:

Learn to deploy high-availability email protection against the dynamic, rapidly changing threats affecting your organization as well as Gain leading-edge career skills focused on enterprise security.

In this 3-day course, Securing Email with Cisco Email Security Appliance (SESA) v3.0, students will learn how to deploy and use Cisco Email Security Appliance to establish protection for your email systems against phishing, business email compromise, and ransomware, and to help streamline email security policy management. This hands-on course provides you with the knowledge and skills to implement, troubleshoot, and administer Cisco Email Security Appliance, including key capabilities such as advanced malware protection, spam blocking, anti-virus protection, outbreak filtering, encryption, quarantines, and data loss prevention.

This course helps you prepare to take the exam, Securing Email with Cisco Email Security Appliance (300-720 SESA), which leads to CCNP Security and the Certified Specialist - Email Content Security certifications.

## **Course Objective:**

Upon completing this course, the learner will be able to meet these overall objectives:

- The 300-720 SESA exam certifies your knowledge of Cisco Email Security Appliance, including administration, spam control and anti-spam, message filters, data loss prevention, Lightweight Directory Access Protocol (LDAP), email authentication and encryption, and system quarantines and delivery methods. The exam will be available beginning February 24, 2020.

After you pass 300-720 SESA:

- You earn the Cisco Certified Specialist – Email Content Security certification.
- You will have satisfied the concentration exam requirement for the new CCNP Security certification. To complete your CCNP Security certification, pass the Implementing and Operating Cisco Security Core Technologies (350-701 SCOR) exam or its equivalent.

## **Audience:**

The primary audience for this course is as follows:

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

## **Prerequisite:**

The knowledge and skills that a student must have before attending this course are:

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

To fully benefit from this course, you should have one or more of the following basic technical competencies:

- Cisco certification (Cisco CCENT® certification or higher)
- Relevant industry certification, such as (ISC)2, CompTIA Security+, EC-Council, Global Information Assurance Certification (GIAC), and ISACA
- 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+)

## **Course Outline:**

### **Module 1: 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

### **Module 2: 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

### **Module 3: 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

#### **Module 4: 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

#### **Module 5: 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

#### **Module 6: 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

#### **Module 7: 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

#### **Module 8: 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

## **Module 9: 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

## **Module 10: 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

## **Module 11: 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

## **Module 12: 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

### **Module 13: 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

### **Module 14: 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

### **Module 15: 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

### **Module 16: References**

- Model Specifications for Large Enterprises
- Model Specifications for Midsize Enterprises and Small-to-Midsize Enterprises or Branch Offices
- Cisco Email Security Appliance Model Specifications for Virtual Appliances
- Packages and Licenses

## Lab Outline:

- Verify and Test Cisco ESA Configuration
- Perform Basic Administration
- Advanced Malware in Attachments (Macro Detection)
- Protect Against Malicious or Undesirable URLs Beneath Shortened URLs
- Protect Against Malicious or Undesirable URLs Inside Attachments
- Intelligently Handle Unscannable Messages
- Leverage AMP Cloud Intelligence Via Pre-Classification Enhancement
- Integrate Cisco ESA with AMP Console
- Prevent Threats with Anti-Virus Protection
- Applying Content and Outbreak Filters
- Configure Attachment Scanning
- Configure Outbound Data Loss Prevention
- Integrate Cisco ESA with LDAP and Enable the LDAP Accept Query
- DomainKeys Identified Mail (DKIM)
- Sender Policy Framework (SPF)
- Forged Email Detection
- Configure the Cisco SMA for Tracking and Reporting

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