

## Securing Email with Cisco Email Security Appliance

**Duration: 4 Days**    **Course Code: SESA**    **Version: 3.2**

### Overview:

Learn how to deploy and use Cisco® Email Security Appliance to establish protection for your email systems against phishing, business email compromise and ransomware. 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 is worth 24 Continuing Education (CE) Credits.**

### Target Audience:

Individuals responsible for the deployment, administration and troubleshooting of a Cisco Email Security Appliance.

### Objectives:

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| <ul style="list-style-type: none"> <li>■ <b>After completing this course you should be able to:</b></li> <li>■ Describe and administer the Cisco Email Security Appliance (ESA)</li> <li>■ Control sender and recipient domains</li> <li>■ Control spam with Talos SenderBase and anti-spam</li> <li>■ Use anti-virus and outbreak filters</li> <li>■ Use mail policies</li> <li>■ Use content filters</li> <li>■ Use message filters</li> </ul> | <ul style="list-style-type: none"> <li>■ Prevent data loss</li> <li>■ Perform LDAP queries</li> <li>■ Authenticate Simple Mail Transfer Protocol (SMTP) sessions</li> <li>■ Authenticate email</li> <li>■ Encrypt email</li> <li>■ Use system quarantines and delivery methods</li> <li>■ Perform centralized management using clusters</li> <li>■ Test and troubleshoot</li> </ul> |
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### Prerequisites:

**Attendees should meet the following prerequisites:**

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

**It is recommended that you have one of the following:**

- Cisco certification (Cisco CCNA® 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+)
- CCNA - Implementing and Administering Cisco Solutions

### Testing and Certification

**Recommended as preparation for the following exams:**

- **300-720** - Securing Email with Cisco Email Security Appliance  
This is one of the concentration exams for the new CCNP Security Certification, to obtain the CCNP Security Certification you will also need to take the 300-701 SCOR exam. Passing the 300-720 exam will also provide you with the Cisco Certified Specialist - Email Content Security Certification.



## Content:

### 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

### 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

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

### 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

### Using Message Filters

- 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

- 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

### Describing 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

### Using Email Authentication

- Email Authentication Overview
- Overview of Sender Policy Framework (SPF) and SDF Verification

### 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

### 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

### Labs

- Discovery Lab 1: Verify and Test Cisco

- Understanding Text Resources
- Text Resource Management
- Using Text Resources

- Configuring DomainKeys and DomainKeys Identified Mail (DKIM) Signing
- Verifying Incoming Messages Using DKIM
- Domain-based Message Authentication Reporting and Conformance (DMARC) Verification
- Forged Email Detection

#### Using 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

#### ESA Configuration

- Discovery Lab 2: Advanced Malware in Attachments (Macro Detection)
- Discovery Lab 3: Protect Against Malicious or Undesirable URLs Beneath Shortened URLs
- Discovery Lab 4: Protect Against Malicious or Undesirable URLs Inside Attachments
- Discovery Lab 5: Intelligently Handle Unscannable Messages
- Discovery Lab 6: Leverage AMP Cloud Intelligence Via Pre-Classification Enhancement
- Discovery Lab 7: Integrate Cisco ESA with AMP Console
- Discovery Lab 8: Prevent Threats with Anti-Virus Protection
- Discovery Lab 9: Applying Outbreak Filters
- Discovery Lab 10: Configure Attachment Scanning
- Discovery Lab 11: Configure Outbound Data Loss Prevention
- Discovery Lab 12: Integrate Cisco ESA with LDAP and Enable the LDAP Accept Query
- Discovery Lab 13: DomainKeys Identified Mail (DKIM)
- Discovery Lab 14: Sender Policy Framework (SPF)
- Discovery Lab 15: Forged Email Detection
- Discovery Lab 16: Configure the Cisco SMA for Tracking and Reporting
- Discovery Lab 17: Configure the Cisco Secure Email and Web Manager for Tracking and Reporting

### Further Information:

For More information, or to book your course, please call us on 00 20 (0) 2 2269 1982 or 16142

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