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Learning Style: On Demand

Technology: Cisco

Difficulty: Intermediate

Course Duration: 40 Hours

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



About this course:

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

Course Objective:

After taking this course, you should be able to:

- 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
- Use mail policies
- Use content filters
- Use message filters to enforce email policies
- Prevent data loss
- Perform Lightweight Directory Access Protocol (LDAP) queries
- Authenticate Simple Mail Transfer Protocol (SMTP) sessions
- Authenticate email
- Encrypt email
- Use system quarantines and delivery methods
- Perform centralized management using clusters
- Test and troubleshoot

Audience:

- 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 [International Information System Security Certification Consortium ((ISC)²), Computing Technology Industry Association (CompTIA) Security+, International Council of Electronic Commerce Consultants (EC-Council), Global Information Assurance Certification (GIAC), 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:

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

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

