Newer Cisco SBA for Government Guides Available

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SBA FOR GOVT

LARGE

BORDERLESS NETWORKS

Cisco Data Security Deployment Guide

SBA FOR GOVERNMENT

Revision: H2CY10

Using this Data Security Deployment Guide

This document is for the reader who:

- Has read the Cisco Smart Business Architecture (SBA) for Government Large Agencies—Borderless Networks deployment guides
- Wants to connect Borderless Networks to a Cisco data security solution
- Wants to gain a general understanding of the Cisco data security solution
- Has a level of understanding equivalent to a CCNA® certification
- Wants to protect sensitive intellectual property and customer data within the agency and prevent accidental leakage
- Wants to address data security compliance and regulatory requirements
- Wants to implement data security policies within the agency
- Wants the assurance of a validated solution

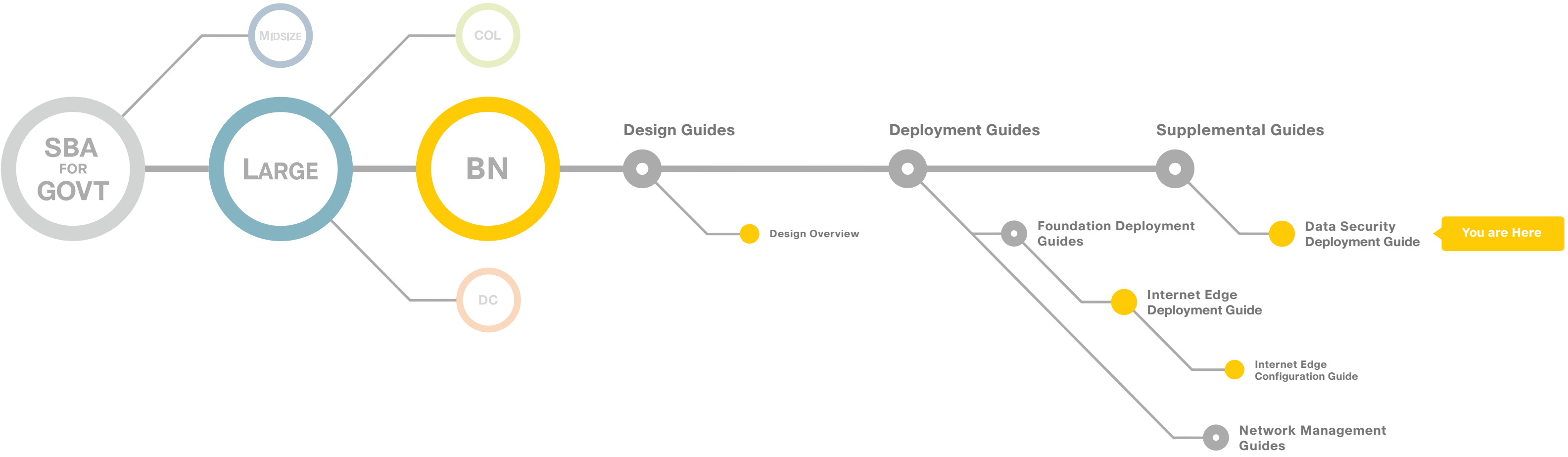
This guide introduces the Cisco data security solution. It provides details on how Cisco content security appliances work with RSA Data Loss Prevention (DLP) products to solve end-to-end data security problems. An overview diagram of the solution is illustrated in Figure 1.

This document is divided into the following sections:

- Agency Overview—outlines the problems faced by large agencies in the area of data security.
- Technology Overview—provides details on data security system concepts and the important characteristics that the industry looks for when evaluating such solutions.
- Detailed Configuration—discusses some of the best practices and the steps required to deploy the Cisco data security solution.

Additional Information

This is a supplement guide to the SBA for Large Agencies (2,000 to 10,000 connected users) deployment guides. The SBA for Large Agencies is a reference architecture that delivers an easy-to-use, flexible and scalable network with wired and wireless security.


MIDSIZE
COL
SBA FOR GOVT
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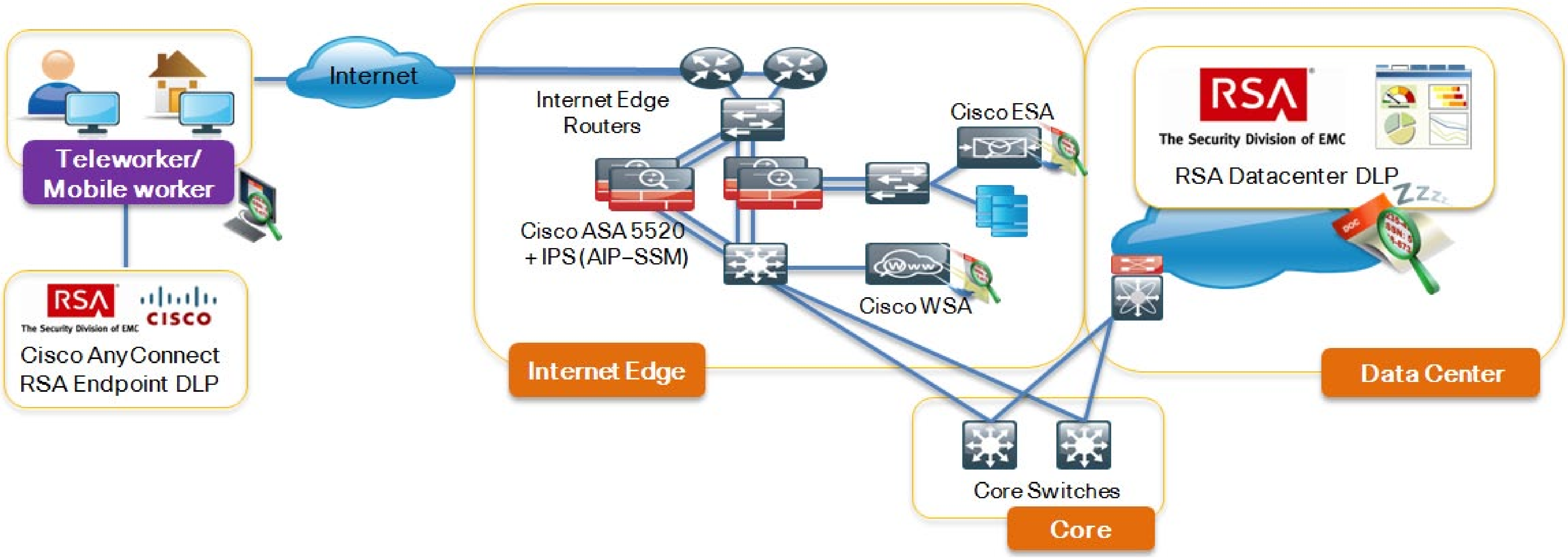
Design Guides
Deployment Guides
Supplemental Guides
Design Overview
Foundation Deployment Guides
Data Security Deployment Guide
You are Here
Internet Edge Deployment Guide
Internet Edge Configuration Guide
Network Management Guides

Figure 1. Solution Diagram



Related Documents

SBA for Large Agencies (2000 to 10,000 connected users) deployment guides (http://www.cisco.com/en/US/solutions/ns340/ns414/ns742/ns982/landing_sBus_archit.html)

Internet Content Adaptation Protocol (ICAP)
http://www.faqs.org/rfcs/rfc3507.html

Technology partner deployment guides can be found here:
http://www.cisco.com/go/securitypartners

Table of Contents

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Agency Overview

Network borders are rapidly being eroded by the need to enable anyone, anywhere to connect to anything, at any time. Employees, partners, and constituents are using mobile devices and applications to connect from homes, hotels, airport Internet kiosks, and local coffee shops, collaborating through mobile platforms, increasing operational efficiency, productivity, and flexibility. However, enhanced communication also increases the risk of losing sensitive information, such as intellectual property and constituent data, due to innocent or malicious activities.

Recently, multiple data loss incidents affecting large agencies have made headlines, resulting in negative media coverage and public embarrassment. In some cases, penalties and corrective actions have cost millions of dollars. Agencies must take steps to protect their sensitive agency data in addition to constituent data, and to comply with government mandates that apply many different kinds of data.

Intellectual property is one of an organization's most important assets; organizations lose billions of dollars each year from theft of trade secrets. Intellectual property can be lost through inadvertent disclosure, or through malicious action by an employee or an outsider.

Organizations need to protect constituent data, including personally identifiable information (PII), credit card numbers (CCNs), Social Security numbers (SSNs), and other records. Sophisticated criminal enterprises are using botnets and malware to infiltrate agencies in order to steal this information. Breached agencies often bear the costs of notifying customers and the public of a data loss incident, and may also have to bear remediation expenses.

International, national, state, and local regulatory requirements are increasing, especially for protection of sensitive information assets. Thousands of data privacy regulations have been created in recent years, and countries and states have enacted data-breach notification laws.

Agencies from different industries and operating in different countries are under mandates to comply with different regulations, such as:

- **Health Care**—EU Directive, PIPEDA, and HIPAA
- **Education**—FERPA, HIPAA, and possibly PCI-DSS
- **Financial**—GLBA, SOX, PCI
- **Retail**—PCI-DSS

To solve these data protection problems and meet regulatory requirements, a comprehensive and well thought out data security solution is essential.

Technology Overview

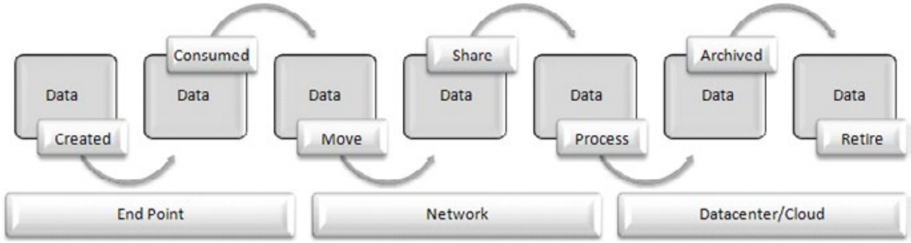
Data Security

A data security solution identifies data based on its content and/or the context in which it occurs. The identification process occurs at many different locations and in many different ways. For example, data identification can take place when data is created and when endpoint devices such as laptops, mobile phones, and removable media consume it. In addition, identification can occur when data is moved or shared across a network, and when it is stored or archived in the data center or a cloud network. An effective data security system must protect the data throughout its entire lifecycle, as depicted in Figure 2.

A primary goal of data security systems is to protect against theft of intellectual property and confidential customer data. Doing so helps agencies comply with legal and regulatory standards. Data security systems interact with networks, endpoints, and data centers, and consist of multiple components, including DLP, encryption, device control, information rights management, and secure delivery, as depicted in Figure 3.

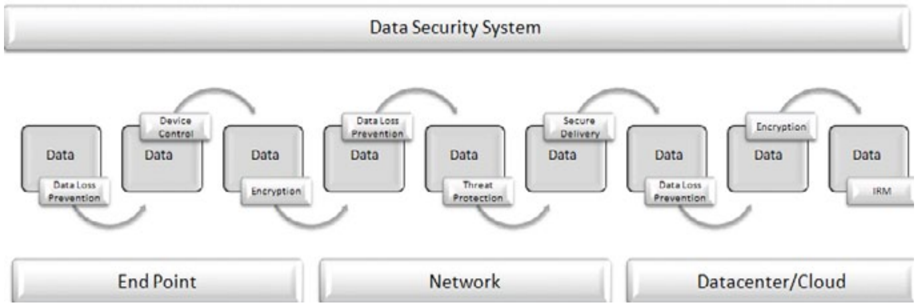
DLP is an important component of a comprehensive data security solution. DLP provides content-based data discovery, monitoring, and protection of sensitive data at rest, in use, and in motion.

Figure 2. Data Security Lifecycle



Endpoint data security uses device control, encryption, and content-aware DLP techniques to protect data at rest and data in use on mobile devices such as laptops, netbooks and smartphones. On laptops and on removable media, data at rest is protected by full disk encryption or intelligent, policy-based encryption of sensitive data. On smartphones, data at rest is protected by encryption and by device control features such as device wipes and personal identification number (PIN) locks. Encryption and device control help mitigate the risk of lost or stolen devices. Content-aware DLP can also discover and classify sensitive information on endpoint devices, preventing accidental leakage of information through such means as USB flash drives or uncontrolled printouts.

Figure 3. Data Security System



Network data security focuses on secure data delivery, threat protection, and data loss prevention for data in motion across the network perimeter. Secure data delivery solutions, such as VPNs, protect data integrity and confidentiality for sensitive information over insecure public links. Threat protection solutions like intrusion prevention systems (IPS) protect against threats such as buffer overflows, injection attacks, directory traversals, and other common attacks. DLP data-in-motion solutions use content-aware techniques to ensure that sensitive information does not leave an agency accidently or by any unauthorized means.

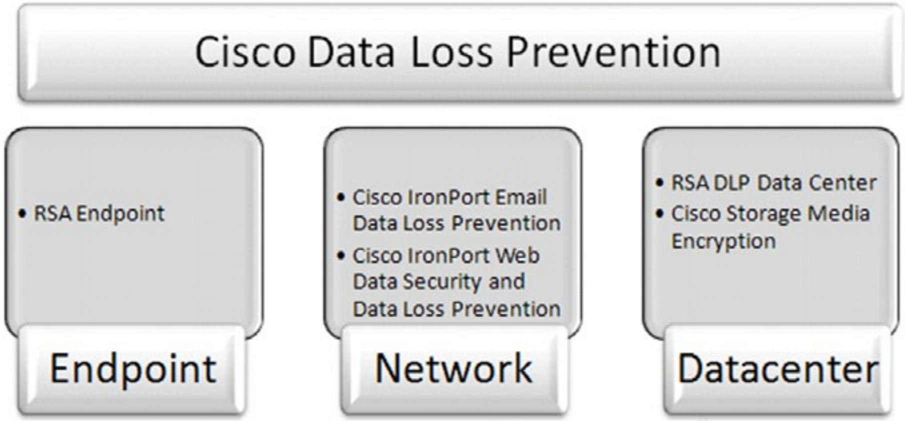
Data center security and cloud data security have many different components, such as database encryption, file-share encryption, storage area network (SAN) data encryption, content-aware data discovery of sensitive data on servers, and information rights management for prevention of unauthorized access. Data center DLP technologies focus on discovery of sensitive information by local or remote agents that crawl databases, document management systems, and other servers, and classify data. Data center security addresses the need to meet data security regulatory requirements, to discover and protect intellectual property, and to provide insight into who has access rights to data.

Data security systems include a central management server for creating and administering data security policies, an incident workflow, a reporting system, and data discovery and enforcement across various points.

Overview of the Cisco Data Security Solution

Cisco is partnering with leading companies through the Cisco Developer Network (CDN) to deliver a comprehensive data security solution, including an array of technologies to protect data throughout its lifecycle, as shown in Figure 4 below. This solution provides agencies a policy-based approach for monitoring, identifying and preventing leakage of information across the network, endpoints and data center.

Figure 4. Comprehensive Data Security Solution


Cisco Data Loss Prevention
• RSA Endpoint
Endpoint
• Cisco IronPort Email Data Loss Prevention
• Cisco IronPort Web Data Security and Data Loss Prevention
Network
• RSA DLP Data Center
• Cisco Storage Media Encryption
Datacenter

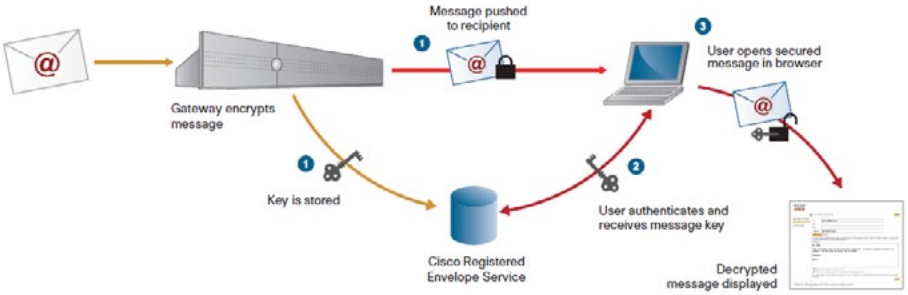
Network Security

Sensitive data can leave the network perimeter by many different means, such as email, web applications, file transfers, and instant messaging. Enforcing content policies at the network perimeter is an effective defense against accidental data loss. Cisco partners with RSA, a leading DLP solution provider, to provide integrated DLP technology on Cisco IronPort Email and Web Security Appliances.

RSA Email DLP is built into the Cisco IronPort Email Security Appliance to provide content-level scanning of email messages and attachments, and to detect sensitive information before it leaves an agency. It contains an integrated DLP scanning engine with over 100 DLP policy templates, and is activated through a software license. DLP policy in the Email Security Appliance allows messages to be examined for data patterns that are associated with sensitive data that should not be exposed to the outside world. Several actions can be taken when a pattern match occurs, ranging from sending a warning message to blocking the entire message.

DLP policy can also enforce encryption of messages containing sensitive data, using the email encryption feature of the appliance. Email encryption can use either the Cisco Registered Envelope Service (CRES) or a local key server, as shown in Figure 5. CRES provides secure and transparent management of key creation, distribution, and retention.

Figure 5. Cisco Registered Envelope Service in Use


Gateway encrypts message
1
Message pushed to recipient
3
User opens secured message in browser
1
Key is stored
Cisco Registered Envelope Service
2
User authenticates and receives message key
Decrypted message displayed

Gateway-to-gateway encryption through Transport Layer Security (TLS) is another way of protecting sensitive information. The Email Security Appliance can securely relay a message over a TLS connection, and the administrator can configure the policy to control whether TLS transport is mandatory, or used only when the other side of the connection supports it, and whether message-level encryption is used as a fallback when TLS is not available.

While the Email Security Appliance protects standard Internet email sent using the Simple Mail Transfer Protocol (SMTP), other increasingly popular alternatives, such as instant messaging and web-based email services, must also be inspected for sensitive data. Cisco IronPort Web Security Appliances can connect to an external DLP system using ICAP. This enables the Web Security Appliance to apply DLP policies to HTTP, HTTPS, and FTP traffic in the same way as the Email Security Appliance does to SMTP traffic, providing consistent enforcement no matter which protocol is being used to send the information.

Endpoint Security

Endpoint data security includes content aware policy enforcement, mandatory encryption of sensitive data on laptops and smartphones, and protection of sensitive information being copied or transferred to removable media. Cisco partners with endpoint data protection market leaders to provide validated and compatible policy-based encryption and device control solutions for data at rest and data in use on endpoints.

Cisco recommends RSA DLP Endpoint for the protection of information assets on laptops and desktops. RSA DLP Endpoint consists of two modules, Discover and Enforce. The Discover module provides content-based data classification and fingerprinting that provides visibility for sensitive data on laptops and desktops. The enforcement module provides protection for data in use by preventing copying of sensitive data to USB devices and other removable media.

Data Center Security

DLP for the data center involves discovering, classifying and encrypting sensitive data no matter where it resides in the data center—file systems, databases, email systems, or network-based storage. Cisco recommends RSA DLP Datacenter, which can discover sensitive data and help to enforce policies across file shares, databases, network storage, Microsoft SharePoint sites and other data repositories to reduce the risk and operational impact associated with agency data loss.

RSA DLP Datacenter offers permanent and temporary agents. Temporary agents scan data, collect policy violations, and self-uninstall to allow agencies to survey their risk landscape. RSA Enterprise Manager can deploy policies across RSA DLP Datacenter, DLP Network and DLP Endpoint.

For data center SAN storage, Cisco MDS 9000 Family Storage Media Encryption (SME) offers a heterogeneous, standards-based encryption solution for data at rest, with comprehensive built-in key-management features.

Data Security Deployments and Use Cases

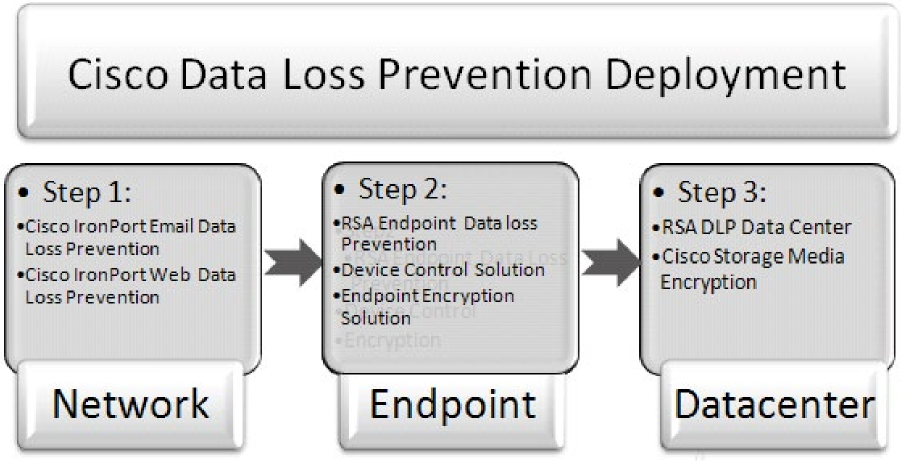
A complete data security system is best deployed in stages, as depicted in Figure 6 below. Cisco recommends implementing DLP in three sequential steps:

1. Network Deployment provides broad coverage with ease of management, using the security management features of Cisco IronPort Email Security and Web Security Appliances.
2. Endpoint Deployment provides policy-based device control and encryption to prevent sensitive information from leaving through external removable media, printing, copying and other means of data in use.
3. Data Center Deployment, the final step, requires understanding the agency's unstructured or structured sensitive data assets, and determining what policies need to be enforced at various points in the data security deployment. RSA DLP Datacenter and Cisco SME address issues of discovering and encrypting sensitive information in the data center.

In addition, after each step is completed, we recommend two additional activities:

- Tuning—after agencies identify their sensitive data, they configure DLP to meet their particular requirements. This involves testing to ensure they are detecting violations, frequently by configuring the products in learning or non-block mode to gather information for secondary analysis, before implementing more stringent controls.
- Optimization—finally, the data security system should be optimized for easy maintenance and management. In this phase, automatic updates, instant reports for executives, automatic decision making information and detailed violation reports are typically configured.

Figure 6. Cisco Data Loss Prevention Deployment


Cisco Data Loss Prevention Deployment
• Step 1:
•Cisco IronPort Email Data Loss Prevention
•Cisco IronPort Web Data Loss Prevention
Network
• Step 2:
•RSA Endpoint Data loss Prevention
•Device Control Solution
•Endpoint Encryption Solution
Endpoint
• Step 3:
•RSA DLP Data Center
•Cisco Storage Media Encryption
Datacenter

Cisco Data Security Configuration Details

Network Security

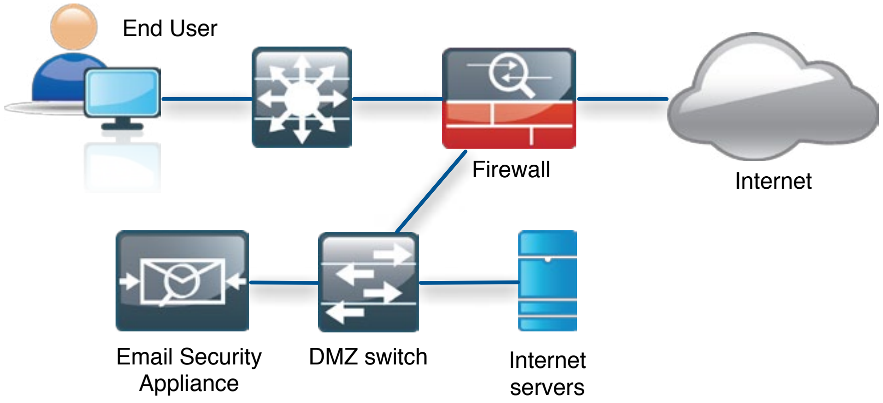
Process

Cisco Email Data Security Configuration

1. Enable DLP
2. Set Up the Basic DLP Policy
3. Testing and Monitoring the Data Security System
4. Monitoring DLP Policies

The Cisco IronPort Email Security Appliance is placed in the DMZ of the Internet edge of the SBA for Large Agencies—Borderless Networks architecture. For simplicity, the appliance is connected by a single interface, as shown in Figure 7.

Figure 7. Cisco Email Data Security Architecture



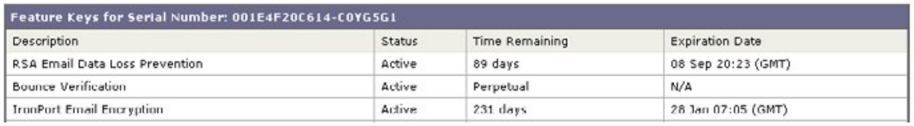
Implementing DLP with Email Security Appliances requires the following high-level procedures, each involving several steps, as listed below:

- Enable DLP
- Set up basic DLP policy
  a. HIPAA Policy
  b. GLBA Policy
  c. PCI-DSS Policy
  d. Custom Policy
- Connect the DLP policy with outgoing mail policy
- Test and monitor policy violations

Procedure 1 Enable DLP

DLP is a licensed feature on the Cisco IronPort Email Security Appliance. You can activate this feature by providing the license key in the Feature Key tab of the web management interface by selecting **System Administration > Feature Keys** and then clicking "Check for New Keys". Verify that the key is active, as shown in Figure 8.

Figure 8. Activate DLP



Feature Keys for Serial Number: 001E4F20C614-C0YG5G1

Description	Status	Time Remaining	Expiration Date
RSA Email Data Loss Prevention	Active	89 days	08 Sep 20:23 (GMT)
Bounce Verification	Active	Perpetual	N/A
IronPort Email Encryption	Active	231 days	28 Jan 07:05 (GMT)

Note that the email encryption feature license is also active in the example and is required in order to employ message encryption as an option in the DLP policy. If you have not licensed email encryption, this action will not be available.

To start scanning the outgoing emails for sensitive data you must first enable DLP on the appliance using the following steps in the web management interface:

Step 1: Select **Security Services > RSA Email DLP**.

Step 2: Click **Enable**. The license agreement page appears.

Step 3: Read the agreement, then click **Accept.**

Step 4 (optional): Enable Matched Content Logging to allow the logs to include the content that triggers a violation. Note that this option will cause potentially sensitive information (such as credit card numbers) to appear in the security logs. Your agency's policy requirements will determine if this is desirable or not. Also note that this feature requires that the message tracking service is enabled under **Security Services > Message Tracking**.

Procedure 2 Set Up the Basic DLP Policy

The DLP Policy Manager is a single dashboard in the web interface that allows you to manage all email DLP policies. You can access the DLP Policy Manager from the **Mail Policies** Menu. The appliance comes with over 100 predefined policy templates developed by RSA, some of which are shown below. In the following examples, configurations of HIPAA, GLBA, and PCI-DSS policies from predefined RSA templates, as well as one custom policy, are shown.

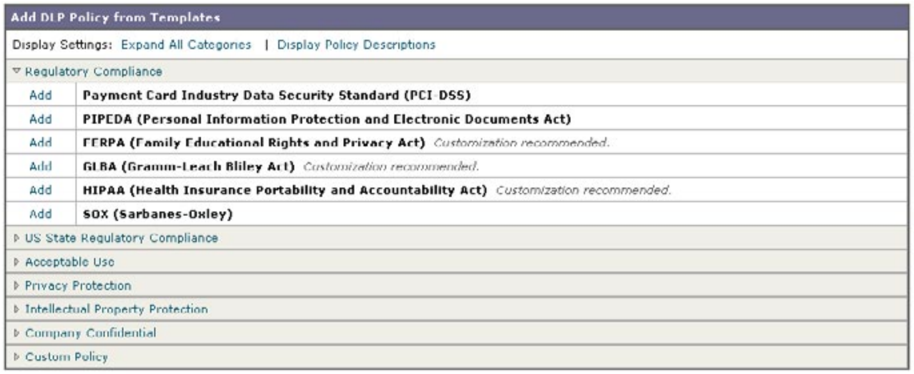
HIPAA Policy

Step 1: Select **Mail Policies > DLP Policy Manager**.

Step 2: Click **Add DLP Policy**.

Step 3: Click **Regulatory Compliance** and then click **Add HIPAA**.

Figure 9. Add DLP Policy



Add DLP Policy from Templates

Display Settings: Expand All Categories | Display Policy Descriptions

▽ Regulatory Compliance

Add	**Payment Card Industry Data Security Standard (PCI-DSS)**
Add	**PIPEDA (Personal Information Protection and Electronic Documents Act)**
Add	**FERPA (Family Educational Rights and Privacy Act)** *Customization recommended.*
Add	**GLBA (Gramm-Leach Bliley Act)** *Customization recommended.*
Add	**HIPAA (Health Insurance Portability and Accountability Act)** *Customization recommended.*
Add	**SOX (Sarbanes-Oxley)**

▷ US State Regulatory Compliance

▷ Acceptable Use

▷ Privacy Protection

▷ Intellectual Property Protection

▷ Company Confidential

▷ Custom Policy

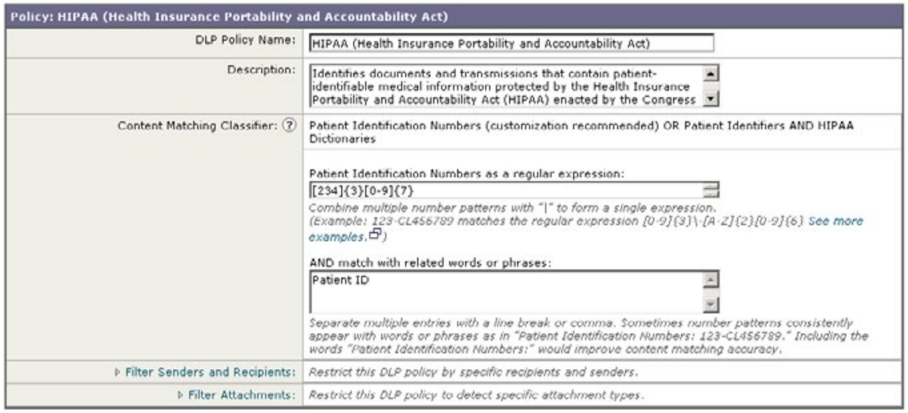
In this example, assume the agency's patient ID numbers follow a pattern of three digits, each ranging from 2 to 4, followed by seven digits ranging from 0 to 9. This pattern is matched by a regular expression of the form [234]{3}[0-9]{7}; additionally, the phrase "Patient ID" must appear in the data, in order for the policy to match.

Step 4: Enter [234]{3}[0-9]{7} in the "Patient Identification Numbers as a regular expression" field.

Step 5: Enter "Patient ID" in the "AND match with related words or phrases" field, as shown in Figure 10 below.

The completed form is show below in Figure 10. If an outgoing email message contains a number that matches both the regular expression and the text "Patient ID", it triggers this DLP policy.

Figure 10. HIPAA DLP Policy



Policy: HIPAA (Health Insurance Portability and Accountability Act)

DLP Policy Name:	HIPAA (Health Insurance Portability and Accountability Act)
Description:	Identifies documents and transmissions that contain patient-identifiable medical information protected by the Health Insurance Portability and Accountability Act (HIPAA) enacted by the Congress
Content Matching Classifier: ?	Patient Identification Numbers (customization recommended) OR Patient Identifiers AND HIPAA Dictionaries Patient Identification Numbers as a regular expression: [234]{3}[0-9]{7} *Combine multiple number patterns with "|" to form a single expression. (Example: 123-CL456789 matches the regular expression [0-9]{3}\-[A-Z]{2}[0-9]{6} See more examples.)* AND match with related words or phrases: Patient ID *Separate multiple entries with a line break or comma. Sometimes number patterns consistently appear with words or phrases as in "Patient Identification Numbers: 123-CL456789." Including the words "Patient Identification Numbers:" would improve content matching accuracy.*
▷ Filter Senders and Recipients:	*Restrict this DLP policy by specific recipients and senders.*
▷ Filter Attachments:	*Restrict this DLP policy to detect specific attachment types.*

Step 6: Under **Severity Settings > Critical Severity Settings**, select **Quarantine** from the **Action Applied to Messages** drop-down menu. Messages that contain DLP violations will be held in a quarantine area.

Step 7: Select **Sender** under **Advanced > DLP Notification**. Optionally, you can choose to encrypt the message, modify its header, deliver it to an alternate host, send a copy (bcc) to another recipient, and send a DLP notification message.

Step 8: If you want to define different settings for messages that match the high, medium, or low severity level, uncheck the **Inherit Settings** check box for the appropriate security level. Edit the overall action for the message and the other settings. In this example different settings by severity level remain unconfigured.

Step 9: Click **Submit** and then **Commit Changes**. The policy is added to the DLP Policy Manager.

GLBA Policy

Follow the preceding steps and add a GLBA policy. However, in this example assume the account numbers consist of three digits in the range of 4 to 6, followed by six digits in the range of 0 to 9.

Step 1: Select **Mail Policies > DLP Policy Manager**.

Step 2: Click **Add DLP Policy**.

Step 3: Click **Regulatory Compliance** and then click **Add GLBA**.

Step 4: Enter [456]{3}[0-9]{6} in the "Custom Account Numbers as a regular expression" field.

Step 5: Enter "Account Number" in the "AND match with related words or phrases" field.

An outgoing email that contains a matching account number and key word will now trigger an alert for a GLBA violation.

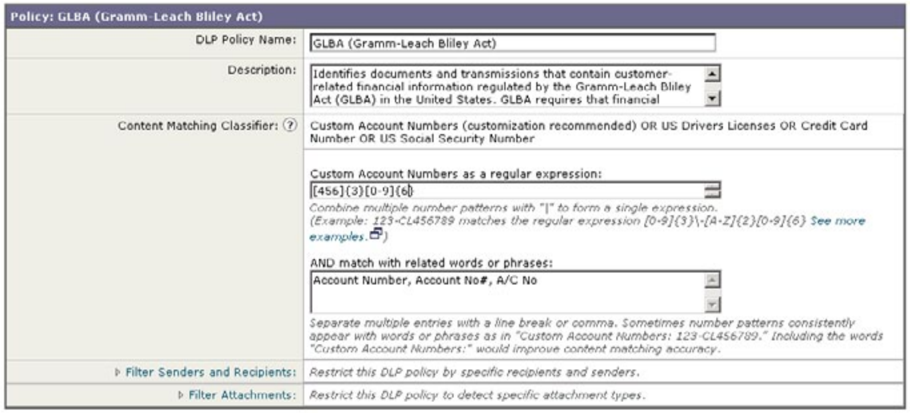
Step 6: Under **Severity Settings > Critical Severity Settings**, select **Quarantine** from the Action Applied to Messages drop-down menu. Messages that contain DLP violations will be held in a quarantine area.

Step 7: Select **Sender** under **Advanced > DLP Notification**. Optionally, you can choose to encrypt the message, modify its header, deliver it to an alternate host, send a copy (bcc) to another recipient, and send a DLP notification message.

Step 8: If you want to define different settings for messages that match the high, medium, or low severity level, uncheck the **Inherit Settings** check box for the appropriate security level. Edit the overall action for the message and the other settings. In this example different settings by severity level remain unconfigured.

Step 9: Click **Submit** and then **Commit Changes**. The policy is added to the DLP Policy Manager.

Figure 11. GLBA DLP Policy



Policy: GLBA (Gramm-Leach Bliley Act)

DLP Policy Name:	GLBA (Gramm-Leach Bliley Act)
Description:	Identifies documents and transmissions that contain customer-related financial information regulated by the Gramm-Leach Bliley Act (GLBA) in the United States. GLBA requires that financial
Content Matching Classifier: ?	Custom Account Numbers (customization recommended) OR US Drivers Licenses OR Credit Card Number OR US Social Security Number Custom Account Numbers as a regular expression: [456]{3}[0-9]{6} *Combine multiple number patterns with "|" to form a single expression. (Example: 123-CL456789 matches the regular expression [0-9]{3}\-[A-Z]{2}[0-9]{6} See more examples.)* AND match with related words or phrases: Account Number, Account No#, A/C No *Separate multiple entries with a line break or comma. Sometimes number patterns consistently appear with words or phrases as in "Custom Account Numbers: 123-CL456789." Including the words "Custom Account Numbers:" would improve content matching accuracy.*
▹ Filter Senders and Recipients:	*Restrict this DLP policy by specific recipients and senders.*
▹ Filter Attachments:	*Restrict this DLP policy to detect specific attachment types.*

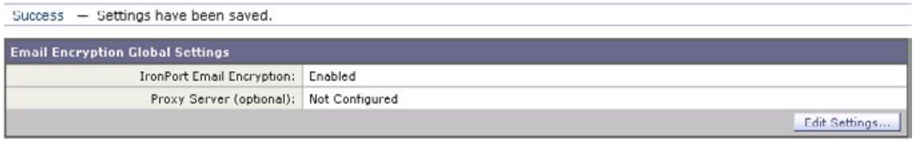
PCI-DSS Policy

PCI standards mandate that credit card numbers never be transmitted in unencrypted form. Before adding a PCI-DSS Policy, enable the encryption profile in order to take encryption as action within the PCI-DSS policy:

Step 1: Click **Security Services** and then **IronPort Email Encryption Services**.

Step 2: Make sure the IronPort Email Encryption is enabled and that the proxy server setting is correct for your network. In our example, no proxy server is required, as shown below.

Figure 12. Enabling Email Encryption



Success — Settings have been saved.

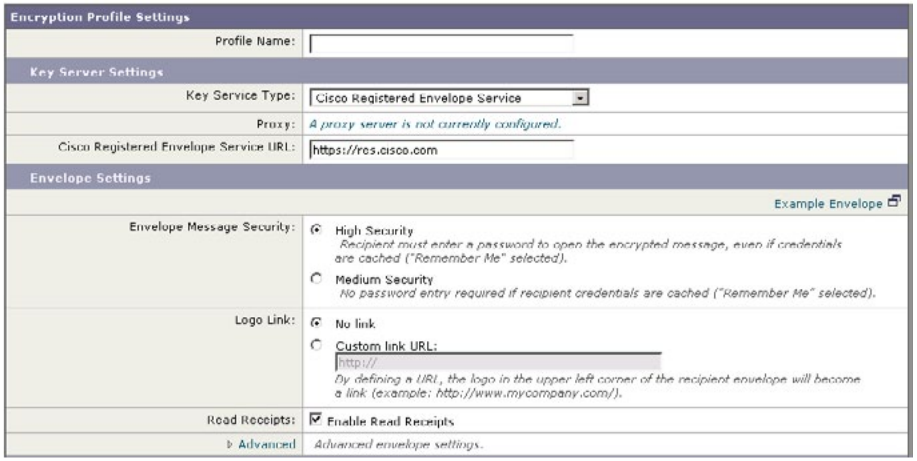
Email Encryption Global Settings

IronPort Email Encryption:	Enabled
Proxy Server (optional):	Not Configured

Step 3: Click **Add Encryption Profile** and use Encryption_Enable as the profile name.

For example, use CRES for key management and select **Cisco Registered Envelope Service** from the Key Service Type list as shown below.

Figure 13. Adding an Encryption Profile



Encryption Profile Settings

Profile Name:

Key Server Settings

Key Service Type: Cisco Registered Envelope Service

Proxy: *A proxy server is not currently configured.*

Cisco Registered Envelope Service URL: https://res.cisco.com

Envelope Settings

Example Envelope

Envelope Message Security:
● High Security
Recipient must enter a password to open the encrypted message, even if credentials are cached ("Remember Me" selected).
○ Medium Security
No password entry required if recipient credentials are cached ("Remember Me" selected).

Logo Link:
● No link
○ Custom link URL: http://
By defining a URL, the logo in the upper left corner of the recipient envelope will become a link (example: http://www.mycompany.com/).

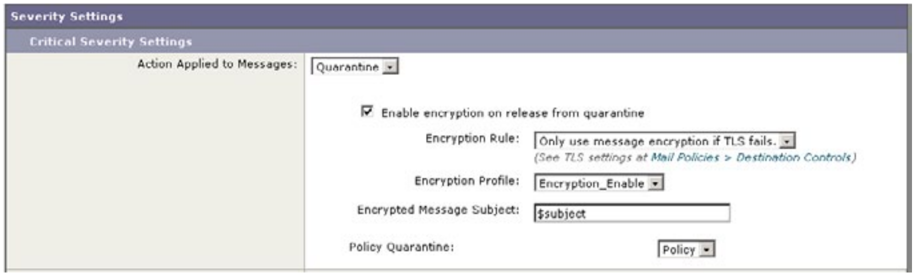
Read Receipts: ☑ Enable Read Receipts

▸ Advanced *Advanced envelope settings.*

To enable the PCI-DSS policy, follow the same steps that you used to add the HIPAA Policy, with the following exception:

In Step 5, in the Critical Severity Settings section, choose the **Quarantine** action as in the previous example, but also select the **Enable encryption on release from quarantine** option. From the **Encryption Rule** drop-down list, select **Only use message encryption if TLS fails** and choose the **Encryption_Enable** profile from Step 2 in the **Encryption Profile** drop-down list.

Figure 14. Enabling Message Encryption if TLS Fails



Severity Settings

Critical Severity Settings

Action Applied to Messages: Quarantine

☑ Enable encryption on release from quarantine

Encryption Rule: Only use message encryption if TLS fails.
(See TLS settings at Mail Policies > Destination Controls)

Encryption Profile: Encryption_Enable

Encrypted Message Subject: $subject

Policy Quarantine: Policy

Custom Policy

When using the pre-built PCI-DSS policy or the Credit Card Number Classifier feature, it is important to note that those cover CCNs from American Express, Discover, Diners Club, JCB, MasterCard, and Visa. If you want to add support for specific store credit cards, you must use a custom policy and configure regular expressions to match the CCNs in e-mail.

The following example, illustrated in Figure 15, configures a regular expression to match a CCN that is 16 digits long and begins with the prefix 6035, with each group of four digits separated by a space, so the CCN structure is 6035 0000 0000 0000. In a regular expression, this can be represented as 6035\s\d{4}\s\d{4}\s\d{4}. Note that here, "\s" represents a space, and "\d" a digit, equivalent to the range [0-9].

Step 1: Select **Mail Policies** > **DLP Policy Manager**.

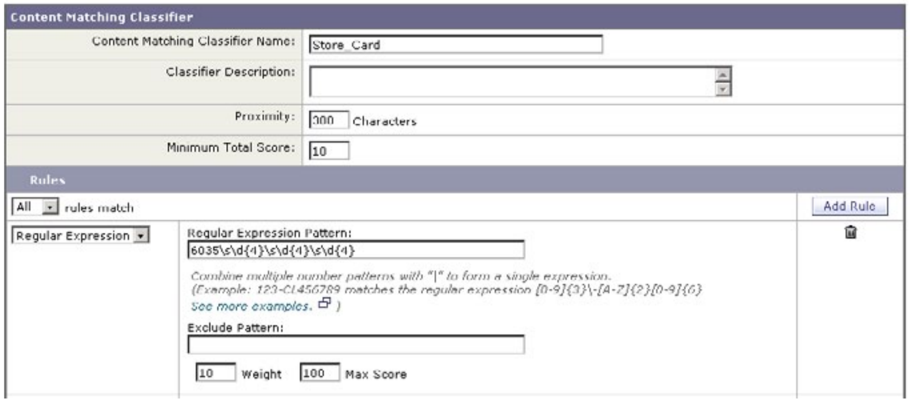
Step 2: Click **Add DLP Policy**.

Step 3: Click **Custom Policy** and assign the name Store_Card.

Step 4: Configure the following three rules:

- Regular Expression: 6035\s\d{4}\s\d{4}\s\d{4}
- Entity: US Address
- Entity: Proper Name

Figure 15. Creating a Custom DLP Policy



Content Matching Classifier

Content Matching Classifier Name: Store_Card

Classifier Description:

Proximity: 300 Characters

Minimum Total Score: 10

Rules

All rules match

Add Rule

Regular Expression

Regular Expression Pattern: 6035\s\d{4}\s\d{4}\s\d{4}

Combine multiple number patterns with "|" to form a single expression.
(Example: 123-CL456789 matches the regular expression [0-9]{3}\-[A-Z]{2}[0-9]{6}
See more examples.)

Exclude Pattern:

10 Weight 100 Max Score

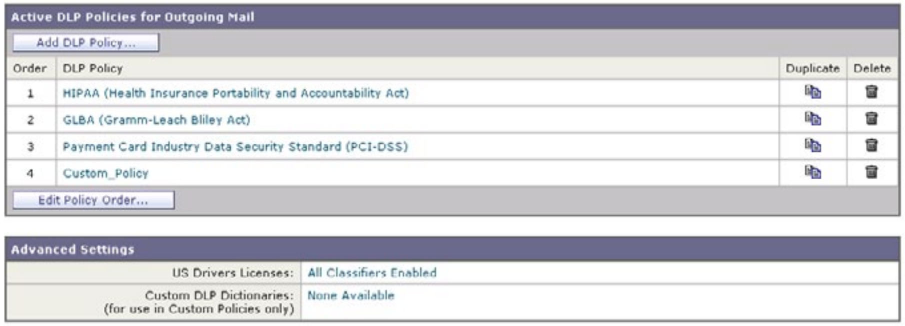
Step 5: Under **Severity Settings** > **Critical Severity Settings**, choose **Quarantine** from the **Action Applied to Messages** list.

Step 6: Select **Sender** under **Advanced > DLP Notification**. Optionally, you can choose to encrypt the message, modify its header, deliver it to an alternate host, send a copy to another recipient, or return a system-generated notification message to the sender.

Step 7: Click **Submit** and then **Commit Changes**. The policy is added to the DLP Policy Manager. The DLP policies will look like those shown in Figure 16 below.

The order of the policies is important. The appliance evaluates the policies in the order that they are listed in the DLP Policy Manager, reading from top to bottom. If a message matches more than one DLP policy, only the first one found in the list will be applied. **Edit Policy Order** can be used to rearrange the rules, if needed.

Figure 16. Setting the Order of Policies



Active DLP Policies for Outgoing Mail

Order	DLP Policy	Duplicate	Delete
1	HIPAA (Health Insurance Portability and Accountability Act)	⧉	🗑
2	GLBA (Gramm-Leach Bliley Act)	⧉	🗑
3	Payment Card Industry Data Security Standard (PCI-DSS)	⧉	🗑
4	Custom_Policy	⧉	🗑

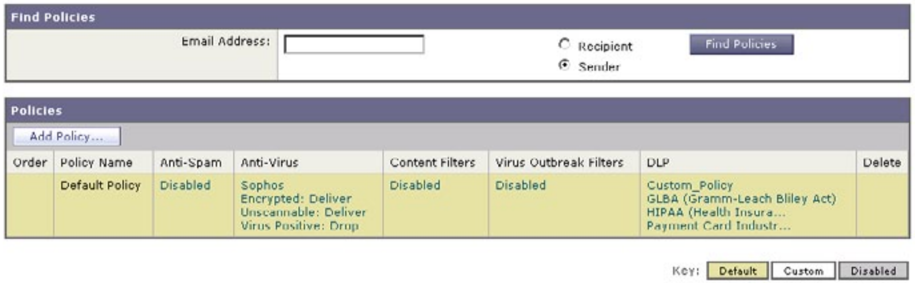
Advanced Settings

US Drivers Licenses:	All Classifiers Enabled
Custom DLP Dictionaries: (for use in Custom Policies only)	None Available

Procedure 3 Connect the DLP policy with Outgoing Mail Policy

Outgoing mail policy determines which DLP policies are applied to messages leaving the agency. To apply the DLP rules created in the steps above, go to **Mail Policies > Outgoing Mail Policies** and select the current DLP policy rules for the outgoing default policy. Note that if you have not yet set up DLP policies, the current DLP policy rules will appear as "Disabled". Clicking on that link will allow you to select **Enable DLP** and to enable or disable the individual policies.

Figure 17. Configuring Outgoing DLP Mail Policies



Find Policies

Email Address: ○ Recipient ● Sender

Policies

Order	Policy Name	Anti-Spam	Anti-Virus	Content Filters	Virus Outbreak Filters	DLP	Delete
	Default Policy	Disabled	Sophos Encrypted: Deliver Unscannable: Deliver Virus Positive: Drop	Disabled	Disabled	Custom_Policy GLBA (Gramm-Leach Bliley Act) HIPAA (Health Insura... Payment Card Industr...	

Key: Default Custom Disabled

HIPAA Policy Example

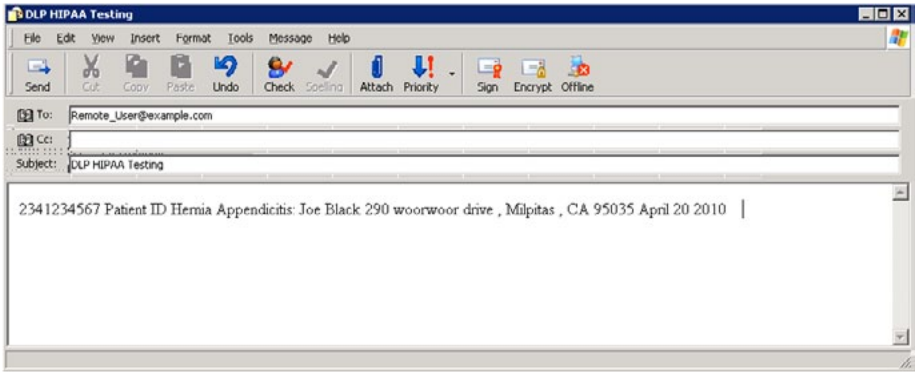
The pre-defined HIPAA policy in the RSA Email DLP engine looks for data in this fashion:

(Drug dictionary OR Disease dictionary OR Injury dictionary) AND (PII classifiers that are ORed together)

In other words, a message must contain something that matches one of the HIPAA dictionaries, as well a PII identifier, in order for the message to match the policy.

To test the outgoing mail policy, compose a test email that includes some illness-related terms, the text "Patient ID", and a patient ID number that matches the pattern defined in the HIPAA example configuration. The image below shows a simple test message. Send the test email to a destination outside the network.

Figure 18. Testing the Outgoing DLP Mail Policy

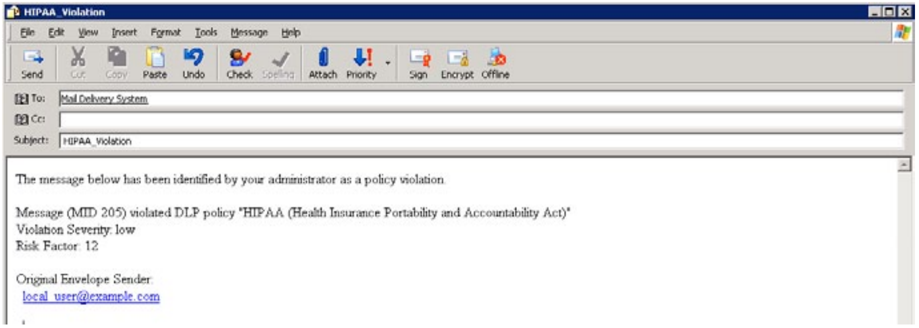

DLP HIPAA Testing
File Edit View Insert Format Tools Message Help
Send Cut Copy Paste Undo Check Spelling Attach Priority Sign Encrypt Offline

To: Remote_User@example.com
Cc:
Subject: DLP HIPAA Testing

2341234567 Patient ID Hernia Appendicitis: Joe Black 290 woorwoor drive , Milpitas , CA 95035 April 20 2010

If the rule is being applied correctly, the sender will receive a notification e-mail similar to the one shown below, indicating the HIPAA violation.

Figure 19. Example Notification Email


HIPAA_Violation
File Edit View Insert Format Tools Message Help
Send Cut Copy Paste Undo Check Spelling Attach Priority Sign Encrypt Offline

To: Mail Delivery System
Cc:
Subject: HIPAA_Violation

The message below has been identified by your administrator as a policy violation.

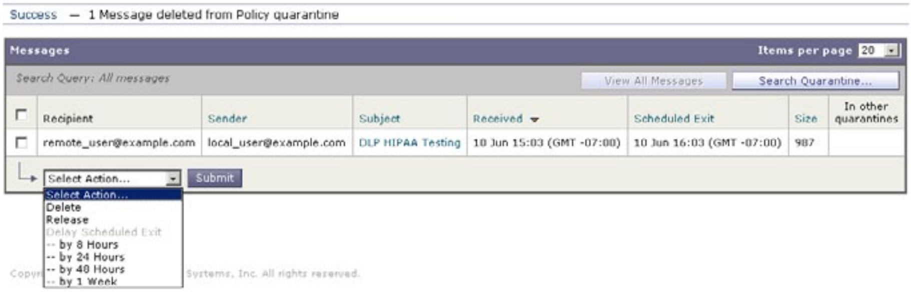
Message (MID 205) violated DLP policy "HIPAA (Health Insurance Portability and Accountability Act)"
Violation Severity: low
Risk Factor: 12

Original Envelope Sender:
local_user@example.com

Because the HIPAA policy was configured to quarantine messages that contain DLP violations, manually inspect the test message, and either delete it or forward it. Quarantine areas also have a default action, which can be either to release the message or to delete it, and a time period after which the default action is automatically taken. In this example, manually release the message, allowing it to be delivered:

Step 1: Select **Monitor > Quarantines > Policy** to view quarantined messages, as shown in Figure 20.

Figure 20. Viewing Quarantined Email Messages


Success — 1 Message deleted from Policy quarantine

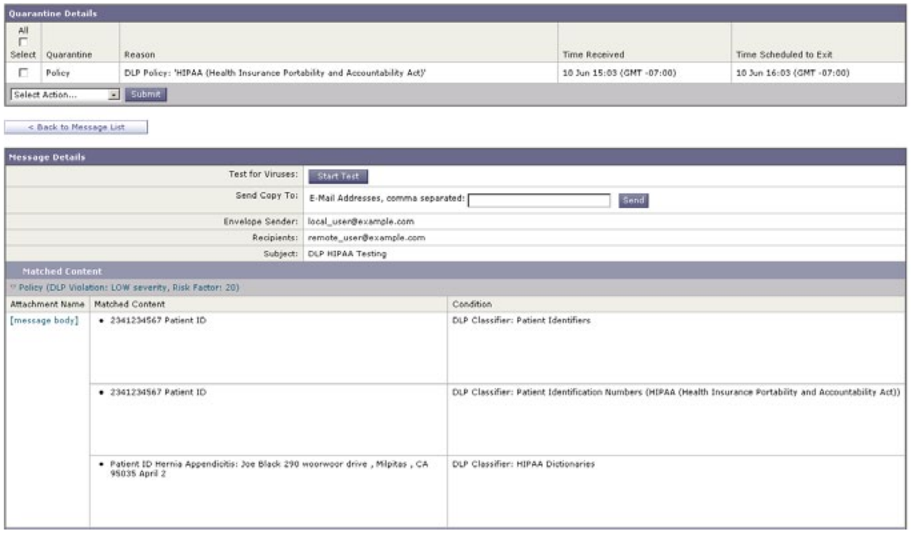
Messages — Items per page 20

Search Query: All messages

☐	Recipient	Sender	Subject	Received	Scheduled Exit	Size	In other quarantines
☐	remote_user@example.com	local_user@example.com	DLP HIPAA Testing	10 Jun 15:03 (GMT -07:00)	10 Jun 16:03 (GMT -07:00)	987	

Step 2: Click the subject to view the details of the quarantined message, as shown in Figure 21 below.

Figure 21. Viewing Details of Quarantined Messages



Quarantine Details

All □ Select	Quarantine	Reason	Time Received	Time Scheduled to Exit
□	Policy	DLP Policy: 'HIPAA (Health Insurance Portability and Accountability Act)'	10 Jun 15:03 (GMT -07:00)	10 Jun 16:03 (GMT -07:00)

Message Details

Test for Viruses: Start Test

Send Copy To: E-Mail Addresses, comma separated: Send

Envelope Sender: local_user@example.com

Recipients: remote_user@example.com

Subject: DLP HIPAA Testing

Matched Content

Policy (DLP Violation: LOW severity, Risk Factor: 20)

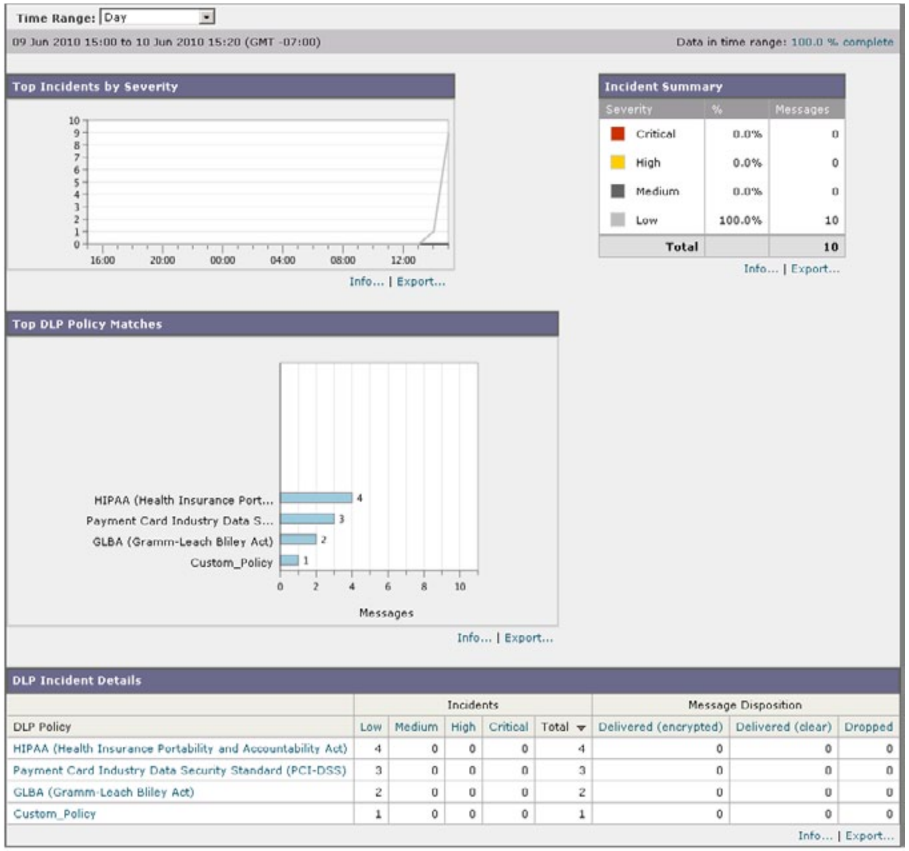
Attachment Name	Matched Content	Condition
[message body]	• 2341234567 Patient ID	DLP Classifier: Patient Identifiers
	• 2341234567 Patient ID	DLP Classifier: Patient Identification Numbers (HIPAA (Health Insurance Portability and Accountability Act))
	• Patient ID Hernia Appendicitis: Joe Black 290 woorwoor drive , Milpitas , CA 95035 April 2	DLP Classifier: HIPAA Dictionaries

Step 3: Under **Quarantine Details**, you have the ability to either delete the quarantined message or to release it, or to extend the quarantine period. To release the message to its destination, check the **Select** box for the test message, choose **Release** from the **Select Action** drop-down list, and then **Submit**.

Procedure 5 Monitoring DLP Policies

In the management GUI, select **Monitor > DLP Incidents**. From the DLP Incident Summary screen shown below, one can click on any of the policies to see the report for that specific policy violation. By clicking on the policy in "DLP Incident Details", one can view individual users who have violated that policy. This allows the administrator to see their mail profile, which provides information about what information assets are leaving the network by e-mail. Administrators can also search for DLP violations and see the specific content that triggered the DLP violation. This provides detail about what transpired in the DLP incidents during auditing and discovery.

Figure 22. Monitoring DLP Incidents



Time Range: Day

09 Jun 2010 15:00 to 10 Jun 2010 15:20 (GMT -07:00) Data in time range: 100.0 % complete

Incident Summary

Severity	%	Messages
🟥 Critical	0.0%	0
🟨 High	0.0%	0
■ Medium	0.0%	0
▨ Low	100.0%	10
Total		**10**

DLP Incident Details

	Incidents					Message Disposition		
DLP Policy	Low	Medium	High	Critical	Total	Delivered (encrypted)	Delivered (clear)	Dropped
HIPAA (Health Insurance Portability and Accountability Act)	4	0	0	0	4	0	0	0
Payment Card Industry Data Security Standard (PCI-DSS)	3	0	0	0	3	0	0	0
GLBA (Gramm-Leach Bliley Act)	2	0	0	0	2	0	0	0
Custom_Policy	1	0	0	0	1	0	0	0

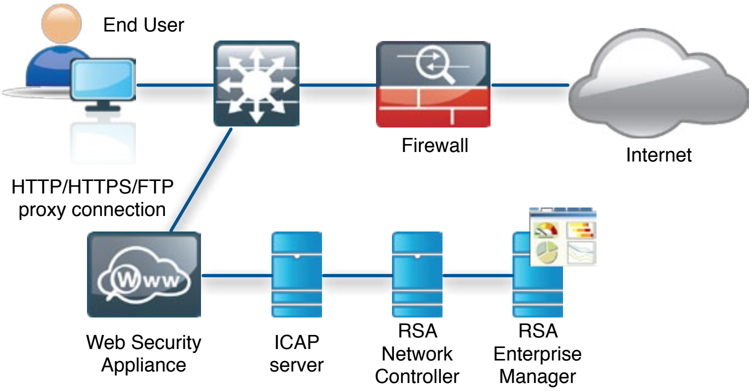
Process

DLP Configuration for Web Traffic

1. Enable DLP on the Appliance
2. Configure the RSA DLP Network
3. Validate the Setup

A Cisco IronPort Web Security Appliance deployed at the Internet edge interoperates with RSA DLP technology to identify and protect sensitive data. The appliance acts as a proxy server and uses ICAP to offload content scanning to external systems. RSA Enterprise Manager manages policies for the network, endpoints, and data-center. Cisco IronPort Web Security Appliance, RSA Enterprise Manager, and the RSA DLP Network Controller are the main components shown below.

Figure 23. Main Components for Web Traffic DLP



In this deployment guide, RSA DLP Network Controller, the ICAP server, and RSA Enterprise Manager are installed and configured in the SBA for Large Agencies—Borderless Networks architecture.

The following sections provide a recommended configuration for blocking sensitive information sent through webmail. Cisco IronPort Web Security Appliance version 6.3.3 is the verified platform. In this example, the pre-defined PCI-DSS policy for the network is used.

Implementing DLP with Web Security Appliances requires the following high-level procedures, each involving several steps, as listed below:

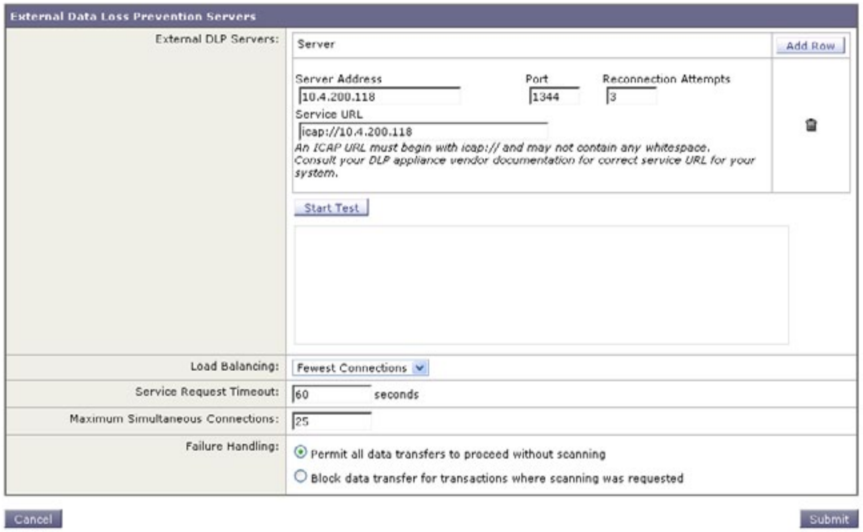
- Enable DLP on the appliance
- Configure the RSA DLP network
- Validate the setup
- Test and monitor policy violations

Procedure 1 Enable DLP on the Appliance

Step 1: Enable external DLP server, which in this example has IP address 10.4.200.118:

From the Web Security Appliance web management GUI, select **Network > External DLP Servers**, then click **Edit Settings**. In the **Server Address** field, enter the address of the RSA DLP server, in this case 10.4.200.118. The **Port** will usually be left set to the ICAP default port of 1344. The **Service URL** is of the form icap://serverIP/srv_conalarm, so in the example shown in Figure 24, it is icap://10.4.200.118/srv_conalarm.

Figure 24. Configuring an External DLP Server Using ICAP



External Data Loss Prevention Servers

External DLP Servers: Server

Server Address: 10.4.200.118 Port: 1344 Reconnection Attempts: 3

Service URL: icap://10.4.200.118

An ICAP URL must begin with icap:// and may not contain any whitespace. Consult your DLP appliance vendor documentation for correct service URL for your system.

Load Balancing: Fewest Connections

Service Request Timeout: 60 seconds

Maximum Simultaneous Connections: 25

Failure Handling:
● Permit all data transfers to proceed without scanning
○ Block data transfer for transactions where scanning was requested

To test the connection between the appliance and the external DLP server, click **Start Test**.

Click **Submit**, then **Commit Changes**.

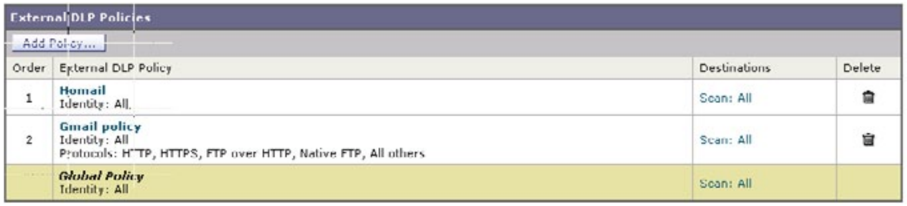
Step 2: Set Up External DLP Policy

Create external DLP policies that determine which traffic is sent to the ICAP server for content scanning.

Go to **Web Security Manager > External DLP Policies** and click **Add Policy**. Give the policy a name in the **Policy Name** field. In this example, use "Gmail Policy" as the name. Under **Policy Member Definition**, select criteria for the policy. In this example, apply the policy to all users and leave **Identities and Users** set to the default value of **All Identities**. For this setting, at least one further selection option is required. Click on **Advanced** and then set the **Protocols** definition to include HTTP, HTTPS, FTP over HTTP, Native FTP, and All others. Click **Submit**.

Click on the **Scan** settings under Destinations for the policy. Choose **Define Destinations Scanning Custom Settings** from the drop-down list, and set **Destinations to Scan** to **Scan all uploads**. The resulting policy should look like the "Gmail policy" entry shown below:

Figure 25. Configuring to Scan All Protocols



External DLP Policies

Add Policy...

Order	External DLP Policy	Destinations	Delete
1	**Hotmail** Identity: All.	Scan: All	🗑
2	**Gmail policy** Identity: All Protocols: HTTP, HTTPS, FTP over HTTP, Native FTP, All others	Scan: All	🗑
	Global Policy Identity: All	Scan: All	

Step 3: Click **Submit** and then **Commit Changes**.

Procedure 2 Configure the RSA DLP Network

Step 1: In RSA Enterprise Manager, enable the ICAP server and Network Controller. The Network Controller communicates between RSA Enterprise Manager and network devices.

Go to **Admin > Network > Status** and verify that the Network Controller and ICAP servers are operating. For detailed instructions on setting up the DLP Network ICAP server and Network Controller, please refer to the RSA documentation for RSA Data Loss Prevention.

Step 2: Write a PCI-DSS policy to prevent the loss of sensitive information via Gmail.

Go to **Policies > New Policy > Use Policy Template**.

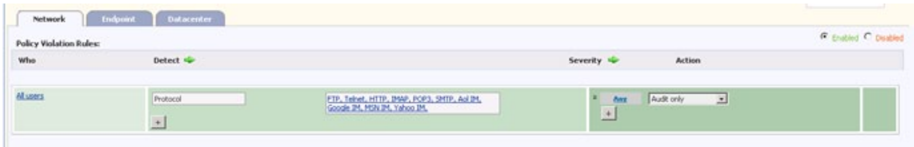
Click PCI –DSS policy. The PCI-DSS policy page opens.

Under the Network tab, select the following options:

- Under Who, select **all Users**.
- Under Detect, select **Protocols**.
- Under Action, **Audit only**.

Click **Save**.

Figure 26. Setting a Policy for Gmail



Who	Detect		Severity	Action
All users	Protocol	FTP, Telnet, HTTP, IMAP, POP3, SMTP, Aol IM, Google IM, MSN IM, Yahoo IM,	Any	Audit only

Procedure 3 Validate the Setup

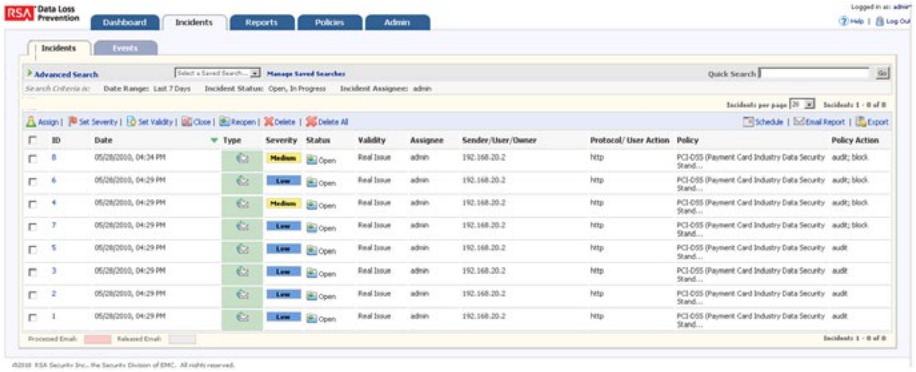
Step 1: Configure a web browser to proxy outgoing traffic through the Cisco IronPort Web Security Appliance.

Step 2: Using the browser, access Gmail, compose a new message, and attach a file that violates the PCI-DSS policy.

Step 3: Verify that a Network ICAP discard message is displayed in the browser.

Step 4: Use RSA Enterprise Manager to view the resulting event and incident that were created as a result of this violation of policy.

Figure 27. Viewing Incidents and Events Caused by Policy Violations



Search Criteria is: Date Range: Last 7 Days Incident Status: Open, In Progress Incident Assignee: admin

Incidents per page 20 Incidents 1 - 8 of 8

□	ID	Date	Type	Severity	Status	Validity	Assignee	Sender/User/Owner	Protocol/ User Action	Policy	Policy Action
□	8	05/28/2010, 04:34 PM		Medium	Open	Real Issue	admin	192.168.20.2	http	PCI-DSS (Payment Card Industry Data Security Stand...	audit; block
□	6	05/28/2010, 04:29 PM		Low	Open	Real Issue	admin	192.168.20.2	http	PCI-DSS (Payment Card Industry Data Security Stand...	audit; block
□	4	05/28/2010, 04:29 PM		Medium	Open	Real Issue	admin	192.168.20.2	http	PCI-DSS (Payment Card Industry Data Security Stand...	audit; block
□	7	05/28/2010, 04:29 PM		Low	Open	Real Issue	admin	192.168.20.2	http	PCI-DSS (Payment Card Industry Data Security Stand...	audit; block
□	5	05/28/2010, 04:29 PM		Low	Open	Real Issue	admin	192.168.20.2	http	PCI-DSS (Payment Card Industry Data Security Stand...	audit
□	3	05/28/2010, 04:29 PM		Low	Open	Real Issue	admin	192.168.20.2	http	PCI-DSS (Payment Card Industry Data Security Stand...	audit
□	2	05/28/2010, 04:29 PM		Low	Open	Real Issue	admin	192.168.20.2	http	PCI-DSS (Payment Card Industry Data Security Stand...	audit
□	1	05/28/2010, 04:29 PM		Low	Open	Real Issue	admin	192.168.20.2	http	PCI-DSS (Payment Card Industry Data Security Stand...	audit

Processed Email: 🟥 Released Email: ⬜ Incidents 1 - 8 of 8

Notes

Endpoint Security

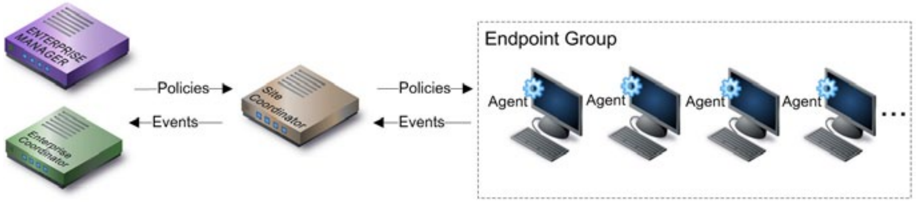
RSA DLP Endpoint allows you to monitor and control how end users interact with sensitive information. It tracks and controls a range of user actions as defined by policy, and it audits user actions involving sensitive data, sending alerts of policy violations, and creating audit logs.

Configuration of RSA DLP Endpoint

A deployed instance of RSA DLP Endpoint includes the following components, shown in Figure 28.

- RSA DLP Endpoint Agents
- RSA DLP Enterprise Manager
- RSA DLP Site Coordinator
- RSA DLP Enterprise Controller

Figure 28. A Deployed Instance of RSA DLP Endpoint



Endpoint Agents run on each user's computer to monitor user actions and perform content analysis. The agents are responsible for enforcing usage policy and collecting audit data. The Site Coordinator controls the customer's deployment. It sends instructions to, and gathers results from, endpoint agents, defined into Endpoint Groups.

The Enterprise Manager is the interface to DLP Endpoint for both users and administrators. The Enterprise Manager sends configuration settings and policies to the Site Coordinator to be picked up by all endpoint agents on the network. At predefined intervals, the Enterprise Manager picks up events sent to the Site Coordinator by those endpoint agents, and based on policy, generates incidents for review and analysis.

Process

RSA DLP Endpoint Example

In this example, assume Enterprise and Site Coordinators "San Jose" are configured. This example shows that, if a user tries to copy files onto external media such as a USB drive, this action triggers a DLP violation.

Step 1: Create a new Endpoint Agent group

In RSA DLP Enterprise Manager, go to **Admin** > **Endpoint**. Click **New Endpoint Group**. Select the site **San Jose**.

In the **Computers (DNS names or IP addresses)** field, specify the IP address of the computer (for example, 192.168.21.36).

In the **Configure passwords** section, enter the GPO/Push Agent Password, which is the password for installing endpoint agents with push technology. If you have already installed endpoint agents on the target machines in the Endpoint group, enter the same password that was used for those installations.

Step 2: Activate RSA DLP Endpoint policy using pre-defined policy templates

Go to Policies tab.

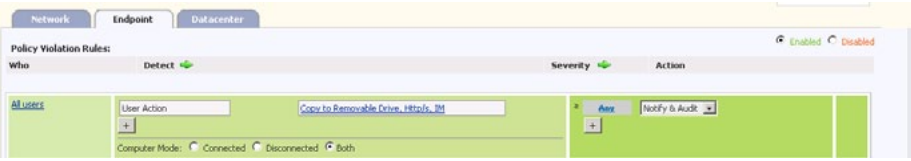
Click **New Policy** at the top of the policy list.

Select **Use Policy Template Library** from the drop-down menu.

Under the Regulatory and Compliance section, select the PCI-DSS policy template and activate it for Endpoint.

Click the PCI-DSS policy and then select the **Endpoint** tab within the PCI – DSS template.

Figure 29. Policy Validation Rules



● Enabled ○ Disabled

Policy Violation Rules:

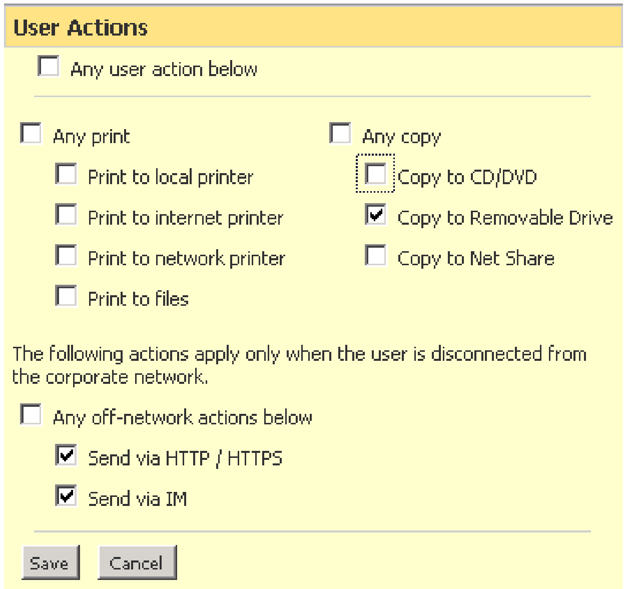
Who	Detect		Severity	Action
All users	User Action + Computer Mode: ○ Connected ○ Disconnected ● Both	Copy to Removable Drive, Http/s, IM	Any +	Notify & Audit

Create a policy violation rule. In the Who field, keep the default “All users” option.

Under Detect, the detection filter lets you specify user actions, file attributes, destination attributes and transmission attribute that can trigger DLP violation.

Add a “User action” detection rule, which lets you specify a user action that triggers a DLP violation. Select **Copy to Removable Drive**.

Figure 30. Defining a User Action Detection Rule for Removable Drives



User Actions

□ Any user action below

□ Any print
- □ Print to local printer
- □ Print to internet printer
- □ Print to network printer
- □ Print to files

□ Any copy
- □ Copy to CD/DVD
- ☑ Copy to Removable Drive
- □ Copy to Net Share

The following actions apply only when the user is disconnected from the corporate network.

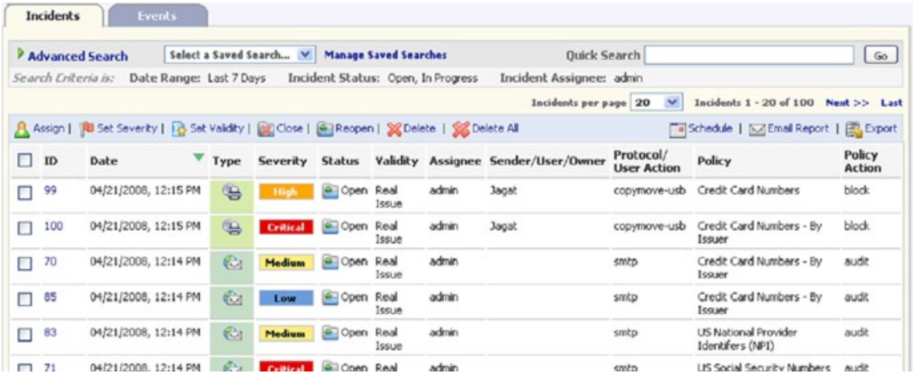
□ Any off-network actions below
- ☑ Send via HTTP / HTTPS
- ☑ Send via IM

Under Severity — Action, choose **Notify and Audit** as the action the policy should take if a violation occurs.

Click **Save**. The new or edited policy will appear in the policy list on the Policy Manager page. By default, the policy is enabled. To test the policy on the client machine, try copying a document or any other file type that contains a CCN with address information to a USB drive. This will generate DLP violation.

View DLP Violation: Click the Incident tab to display the DLP violation.

Figure 31. Console Messages Showing DLP Violations



Incidents
Events
Advanced Search
Select a Saved Search...
Manage Saved Searches
Quick Search
Go

Search Criteria is: Date Range: Last 7 Days Incident Status: Open, In Progress Incident Assignee: admin

Incidents per page 20 Incidents 1 - 20 of 100 Next >> Last

Assign | Set Severity | Set Validity | Close | Reopen | Delete | Delete All
Schedule | Email Report | Export

□	ID	Date	Type	Severity	Status	Validity	Assignee	Sender/User/Owner	Protocol/ User Action	Policy	Policy Action
□	99	04/21/2008, 12:15 PM		High	Open	Real Issue	admin	Jagat	copymove-usb	Credit Card Numbers	block
□	100	04/21/2008, 12:15 PM		Critical	Open	Real Issue	admin	Jagat	copymove-usb	Credit Card Numbers - By Issuer	block
□	70	04/21/2008, 12:14 PM		Medium	Open	Real Issue	admin		smtp	Credit Card Numbers - By Issuer	audit
□	85	04/21/2008, 12:14 PM		Low	Open	Real Issue	admin		smtp	Credit Card Numbers - By Issuer	audit
□	83	04/21/2008, 12:14 PM		Medium	Open	Real Issue	admin		smtp	US National Provider Identifers (NPI)	audit
□	71	04/21/2008, 12:14 PM		Critical	Open	Real	admin		smtp	US Social Security Numbers	audit

Datacenter Security

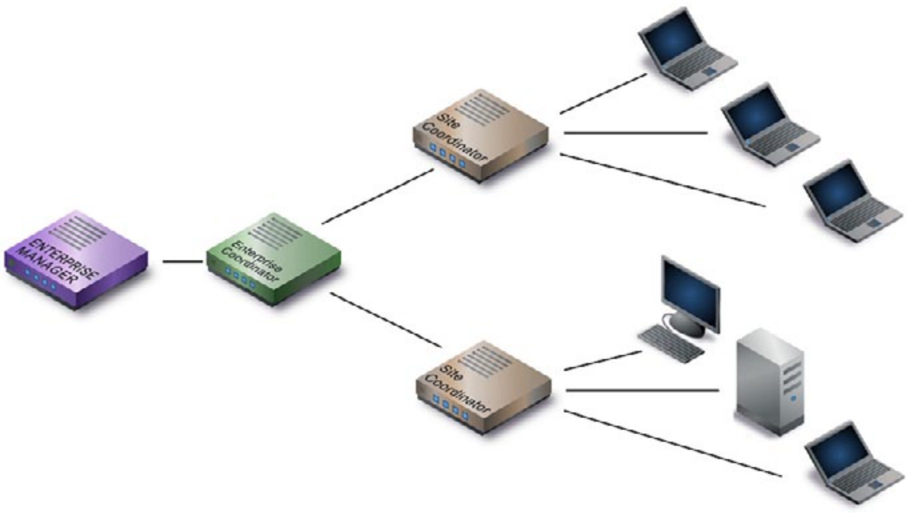
RSA DLP Datacenter is a software solution that permits locating and acting on sensitive information stored anywhere in the agency. In use, DLP Datacenter scans an agency's networks, examining files on all machines of interest.

RSA DLP Datacenter Configuration

A deployed instance of RSA DLP Datacenter includes the following components, as shown in Figure 32.

- RSA DLP Endpoint Agents
- RSA DLP Enterprise Manager
- RSA DLP Site Coordinators
- RSA DLP Enterprise Coordinator

Figure 32. RSA DLP Datacenter Components



During a scan, endpoint agents perform the content analysis. Each agent receives instructions from, and returns results to, its Site Coordinator. An RSA DLP Datacenter installation can have as many Site Coordinators as required, possibly in widely dispersed locations. The Enterprise Coordinator is the master controller for the DLP Datacenter deployment. It sends instructions to, and gathers scan results from, all Site Coordinators involved in all scans.

When it scans, DLP Datacenter accesses a specific scan group, which is a set of machines on the network that you specify as being of interest.

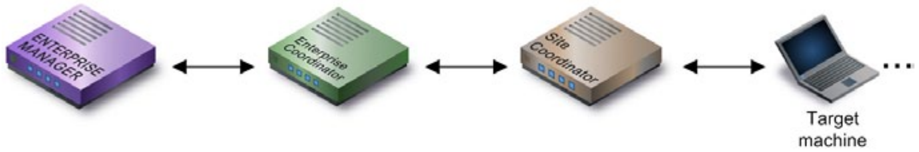
There are several types of scan groups available:

- **Agent:** Scan groups for agent-based scan
- **Grid:** Scan groups for grid scans
- **Repository:** Scan groups for scan

Agent-Based Scanning

In this type of scan, an endpoint agent is installed on every machine whose content should be scanned. To perform a scan, Enterprise Manager sends a request to the Enterprise Coordinator, which sends a command to the appropriate Site Coordinator on a local or remote network. The Site Coordinator installs or connects to an endpoint agent on each target machine in the scan group and commands it to start scanning. Each agent accesses and analyzes all files on its local host and then sends results—information about files that violate the policies being scanned for—back to the Site Coordinator, which collates results and sends them to the Enterprise Coordinator and on to Enterprise Manager for display to the user.

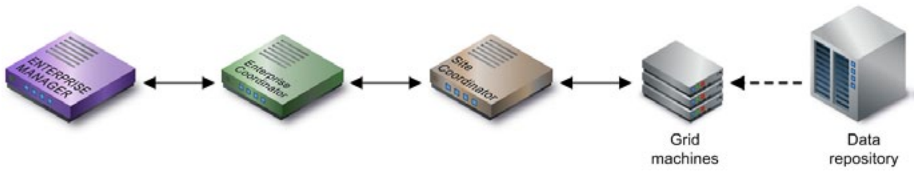
Figure 33. Agent-based DLP Scanning



Grid Scanning:

Grid scanning provides for efficient, scalable analysis of very large file repositories (such as SAN or NAS systems), distributing the burden of analyzing the large amounts of data (up to terabytes) in the storage device.

Figure 34. Grid-based DLP Scanning



Repository Scan and Database Scan

Specialized types of grid scans include database scanning of agency databases, and repository scanning of collaboration and document-management systems, such as SharePoint or Documentum.

In this guide, only agent-based scanning has been validated. Grid scanning is out of the scope of this guide.

RSA DLP Datacenter Agent-based Scanning Example

This example scans a group of machines that contain specific dated files.

Step 1: In Enterprise Manager, click the **Admin** tab. The Administration Status Overview appears. Beneath the Admin tab, click **Datacenter**. The Datacenter administration page appears.

Step 2: Create a new agent-scan group

In the deployment tree, select the Site Coordinator that the new agent group belongs to. Above the tree, click **New Object** and select **New Agent Scan Group** from the drop-down menu. The New/Edit Agent Group panel appears on the right

Step 3: Activate Data Center DLP policy using pre-defined policy templates

Click the **Policies** tab and then **New Policy** at the top of the policy list. Select **Use Policy Template Library** from the drop-down menu. Under regulatory and compliance section select PCI-DSS policy template and activate it for Data Center. Click the PCI-DSS policy and then select the Datacenter tab within the PCI –DSS template.

a. Create a policy violation rule. Click **All Agent and Grid Scan Groups** for selecting the scan group. Select the scan group "Agent_Scan1".

b. Under Detect, add a detection filter that lets you specify by date those files that can be considered to be policy violations. Click the link (by default **Any File Dates**) to display this dialog box: Select **Files modified before May 2010**.

c. Under **Severity — Action**, specify **Audit Only** as action the policy should take if a Violation occurs. You can specify different actions (allow, audit only, audit & encrypt, quarantine & audit , block & audit) for different event severities. In this example, set the severity to **High** and select the action **Quarantine**.

d. Save the Policy. Click **Save**. The new or edited policy will now appear in the policy list on the Policy Manager page. By default, the policy is enabled.

e. Start the Scan. In the deployment tree, select the scan group "Agent_Group" used for the scan. The Agent Group panel appears, showing status information for the scan group that you have selected. In the Agent Group panel, click **Scan Now**. From the drop-down list, choose **Run Full Scan**. Scan all documents on all target machines in the scan group. After the files are identified, the system moves them automatically to a secure location, depending upon the severity. If the severity is high, then the security administrator should inspect it and check why the operational processes were broken.

f. View Logs. Click the **History** tab and then select **View Status Log**. A window displays all status messages as they are logged. This window displays the same status log that is visible when the Status tab is active—covering both the agent-deployment phase and the content analysis phase of the scan.

Summary

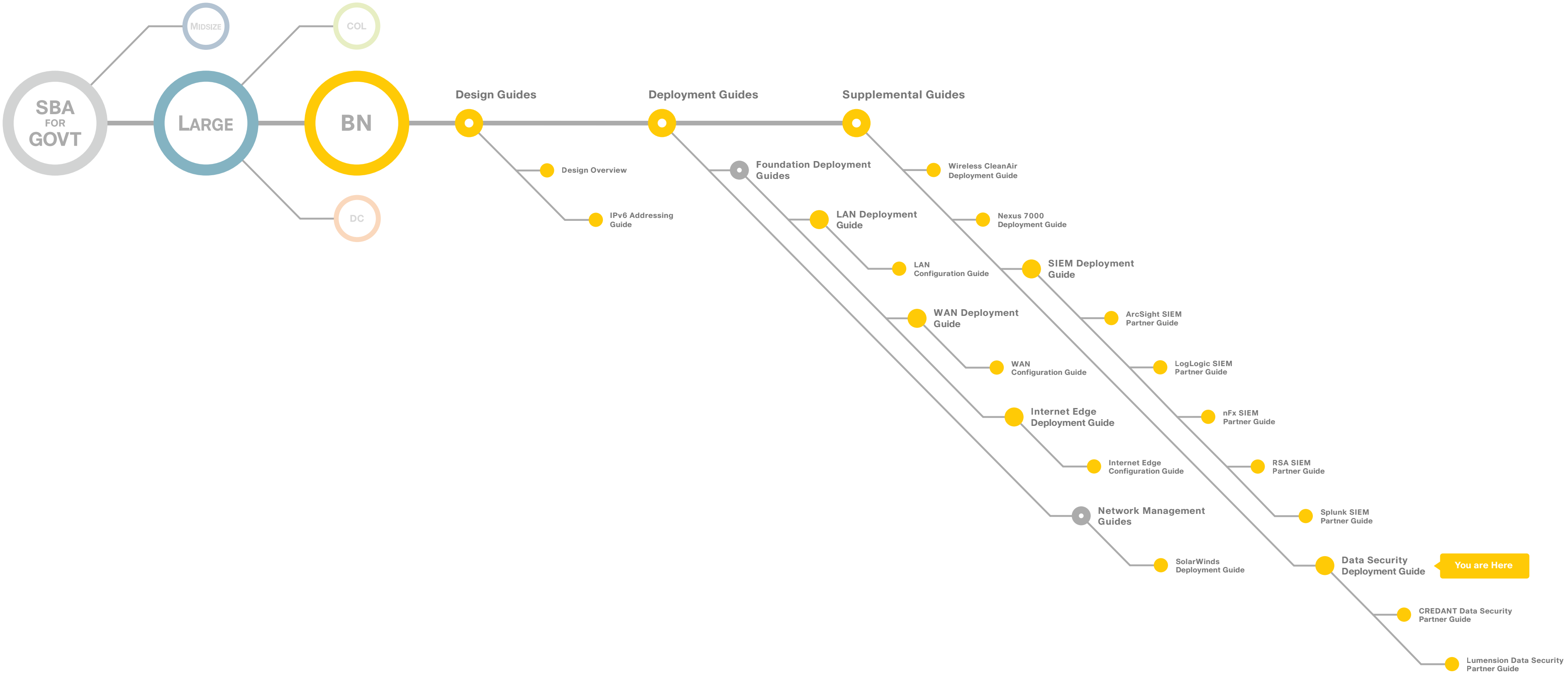
Data security challenges are growing as the second decade of the 21st century unfolds. Organizations want to protect intellectual property and comply with newly introduced regulatory requirements. To address these constituent challenges and agency problems, Cisco has introduced the Cisco Data Security System, which consolidates key data-security trends like DLP with other data protection technologies in a single framework. This guide provides a stepwise, streamlined implementation approach to enable the full suite of DLP in a prioritized order across the network, endpoints and data center.

Additional Information:

Technology partner deployment guides can be found here: http://www.cisco.com/go/securitypartners.

Notes

Appendix A: SBA for Large Agencies Document System



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