FORCEPOINT
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Getting Started Guide

Forcepoint DLP

v8.5.0

10900-A Stonelake Blvd, Quarry Oaks 1, Suite 350, Austin TX 78759

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1 Getting Started with Forcepoint DLP

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After installing Forcepoint DLP, log on to the Forcepoint Security Manager and enter a subscription key (see *Entering a subscription key*).

Next, follow the initial configuration instructions for the components that have been deployed.

- *Configuring the Protector for Use with SMTP*, page 3
- *Configuring the Mobile Agent*, page 7
- *Configuring the Web Content Gateway*, page 11
- *Configuring the Analytics Engine*, page 15
- *Configuring the CASB Service*, page 17
- *Configuring Third-Party Proxies*, page 19

To get started with Forcepoint DLP, also configure commonly-used features:

- *Configuring User Directory Integration*, page 29
- *Getting Started with File Discovery*, page 33

Tip

Administrators who have not yet deployed Forcepoint DLP can find planning information in the Forcepoint DLP Deployment Guide.

For installation instructions, see the Forcepoint DLP Installation Guide.

Entering a subscription key

To enable Forcepoint DLP configuration, enter a subscription key in the Data Security module of the Forcepoint Security Manager:

1. Open a browser and enter the Security Manager URL:

   ```
   https://<IP_address_or_hostname>:9443
   ```

2. Enter the User name **admin** and the password configured during installation, then click **Log On**.
3. If the Data Security module of the Security Manager is not displayed by default, click the **Data** tab to open it.
   - Until a subscription key is entered, a subscription prompt appears automatically.
   - Once a key has been entered, administrators can review subscription information on the **Settings > General > Subscription** page.
4. Browse to the subscription file, then click **Submit**.

   Current subscription information is displayed.
5. Click **Deploy** in the Security Manager toolbar to complete the process.

2 Configuring the Protector for Use with SMTP

When the protector is used for monitoring or protecting data transfer in email (SMTP) traffic, it can be configured in monitoring or MTA mode.

More information about the different protector deployment modes can be found in the Deployment Guide.

More information about configuring the protector to monitor other protocols can be found in the Administrator Help.

For initial SMTP configuration instructions, see:

- *Set up SMTP in monitoring mode*, page 3
- *Set up SMTP in MTA mode*, page 4

Set up SMTP in monitoring mode

Preparing for configuration

The steps in this procedure assume that the protector has already been installed as described in the Forcepoint DLP Installation Guide, with the following configuration:

- The time, date, and time zone are precise.
- Network interface em1 is mapped and located on the main board.
- Interface em1 is connected to the LAN.

Before beginning the configuration process, make sure the protector is powered on.

Configuring the protector

Use the Forcepoint Security Manager to configure the protector to monitor SMTP:

1. Go to the **Settings > Deployment > System Modules** page.
2. Select the protector instance.
3. On the General tab, select **Enabled**.

4. On the Local Networks tab, select **Include specific networks**, then add all of the internal networks for all sites.
   - This list is used to identify the direction of the traffic.
   - The mail servers and mail relays should be considered part of the internal network.
5. On the Services tab:
   a. Select the **SMTP** service.
   b. On the General tab, set the Mode to **Monitoring bridge**.
   c. On the Traffic Filter tab, set the Direction to **Outbound**.
   d. Click **OK**.
6. Click **OK** to save the configuration.
7. Click **Deploy** to activate the settings.
8. Connect the protector to the outgoing connection and to the organization's internal network.

   This should be done last, after the protector is fully configured.

Set up SMTP in MTA mode

Preparing for configuration

The steps in this procedure assume that the protector has already been installed as described in the Forcepoint DLP Installation Guide, with the following configuration:

- The time, date, and time zone are precise.
- The network interface selected during installation is mapped and located on the main board.
- The interface is connected to the LAN.

Before beginning the configuration process, make sure the protector is powered on.

Configuring the protector

Configure the protector in the Forcepoint Security Manager:

1. Go to the **Settings > Deployment > System Modules** page.
2. Select the protector instance.
3. On the General tab, select **Enabled**.
4. On the Local Networks tab, select **Include specific networks**, then add all of the internal networks for all sites.
   - This list is used to identify the direction of the traffic.
   - The mail servers and mail relays should be considered part of the internal network.

5. On the Services tab:
   a. Select the **SMTP** service**.**
   b. On the General tab, set the Mode to **Mail Transfer Agent (MTA)**.
   c. On the Mail Transfer Agent (MTA) tab, set the Operation Mode to **Blocking** and select the behavior desired when an unspecified error occurs during analysis.
   d. Set the **SMTP HELO name**. This is required.
   e. Set the next hop MTA (for example, the organization's mail relay), if needed.
   f. Set the addresses of all networks that are permitted to relay email messages through the protector.
      - This is required, as it is important that not all networks have permission to send email via the protector's SMTP service. Otherwise, the protector can be used as a mail relay.
      - This list should include the addresses of any previous hops, such as the mail server.
6. Click **OK** to save the configuration.
7. Go to the **Main > Policy Management > DLP Policies** page.
8. Select a policy rule to use for email management, then click **Edit**.
9. Complete the fields as follows:
   a. Select **Destinations**, and check the **Network Email** box.
   b. Select **Severity & Action**, then select an action plan that includes notifications.

   Note
   For more information about action plans, see the section "Action Plans" in the Forcepoint DLP Administrator Help.

   c. Click **OK** to save the policy configuration.
10. Click **Deploy** to activate the settings.

Connecting the protector

1. Connect the protector to the outgoing connection and to the organization's internal network.

   Do this last, after the protector is fully configured.
2. If a next hop server exists (for example, a company mail relay), add the protector's IP address to its allowed relay list.
3. (*Optional*) Set the mail server's next hop (smart host) to the protector's IP address.

3 Configuring the Mobile Agent

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To getting started with the mobile agent, first verify or update the mobile agent configuration in the Forcepoint Security Manager, then create mobile DLP policies for the mobile agent to enforce. A predefined mobile DLP quick policy is provided to simplify the process.

See:

- *Configure the mobile agent module*, page 7
- *Configuring a mobile DLP policy*, page 9

Configure the mobile agent module

To configure mobile agent settings:

1. Log on to the Data Security module of the Security Manager.
2. Go to the **Settings > Deployment > System Modules** page.
3. Select the mobile agent instance.
4. Click the Connection tab, then define the Exchange and Mobile Devices connections:
   a. For Exchange Connection, supply the domain and hostname or IP address of the Exchange server.
   b. Specify a port number:
      - If **Use secure connection (SSL)**, is selected, the port number defaults to **443**.
      - Otherwise, the port number defaults to **80**.

Important

If the Exchange server is specified by name, make sure local resolving is properly configured to resolve this name. In addition, if an edge-like device is used, ensure there are no loops through the device.

c. For Mobile Devices Connection, supply the IP address of the mobile agent and port number.

To use all IP addresses, select **All IP addresses** from the IP address drop-down list.

> **Note**
> The IP address of the mobile agent was defined during the installation of the mobile device, when configuring the network settings.

More detailed information about these connections is available in the Forcepoint DLP Administrator Help.

5. (*Optional*) If connections between mobile devices and the mobile agent are secured, select the appropriate certificate option:
   - **Self-signed certificate** (default) uses a certificate signed by Forcepoint.
   - **Custom certificate** uses a certificate signed by a Certificate Authority (CA).
     a. Click **Browse** to locate and upload the public certificate.
     b. Click **Browse** to locate and upload the private key.
     c. Optionally, select **Add chained certificate**, then click **Browse** to locate and upload the chained certificate.

   For more information, see the Forcepoint DLP Administrator Help.
6. Click the Analysis tab, then select a mode: **Blocking** or **Monitoring**.

> **Note**
> When Blocking mode is enabled, it is best practice to:
>
> - Select the **Allow on fail** option, which allows failed messages to be received on the mobile device. When this option is not selected, failed messages are dropped, and are neither tracked nor released.
> - Define the sender's email address, outgoing mail server, and port for breach notifications on the Settings > General > Alerts > Email Properties page.
>
> For more information, see the Forcepoint DLP Administrator Help.

7. Go to the **Main > Policy Management > Resources > Notifications** page and select the mobile policy violation template.
8. Add sender details, then use the Outgoing mail server field to define a next hop relay for outbound mail.

   If you do not, the mobile agent may not send block notifications.
9. Click **Deploy**.

Wait for the agent to fully deploy. This may take a few minutes.

Tip

The mobile agent can also be configured for high-availability. High-availability enables mobile devices to run seamlessly and continuously in the event of a system outage (such as hardware or software failure).

For more information about configuring the mobile agent for high-availability, refer to the document Mobile DLP agent using cluster solutions.

Configuring a mobile DLP policy

To begin analysis, configure the mobile DLP policy or create a custom policy.

- Configure the mobile DLP policy on the Main > Policy Management > DLP Policies > Mobile DLP Policy page in the Security Manager.

  A quick start guide with instructions for setting up the mobile DLP policy is available from the Help > Getting Started menu in the Security Manager.

- Create a custom policy on the Main > Policy Management > DLP Policies > Add Custom Policy page.

  Select **Mobile Email** on the Destination tab for each rule to support Mobile events.

  See the Forcepoint DLP Administrator Help for details.

4 Configuring the Web Content Gateway

After installing the Web Content Gateway module, configure it in both the Content Gateway manager and the Forcepoint Security Manager. See:

Enter a subscription key in the Content Gateway manager

Enter a subscription key in the Content Gateway manager to activate the Web Content Gateway:

1. Open a web browser and enter the Content Gateway manager URL:

   `https://<ip_address>:8081`
2. Log on as **admin** with the password created during installation.
3. Go to the **Configure > Subscription** page.
4. Enter the subscription key.
5. Go to the **Configure > My Proxy > Basic** page.
6. Click **Restart** to restart Content Gateway.

Register Content Gateway with Forcepoint DLP

After Content Gateway is activated, it must be registered with the Forcepoint management server.

Preparing for registration

1. Synchronize the date and time on the Content Gateway and management server machines to within a few minutes.

2. If Content Gateway is deployed as a transparent proxy, ensure that traffic to and from the communication interface ("C" on a V Series appliance) is not subject to transparent routing. If it is, the registration process will be intercepted by the transparent routing and will not complete properly.
3. Make sure that the IPv4 address of the eth0 NIC on the Content Gateway machine is available (not required if Content Gateway is located on a V-Series appliance). This is the NIC used by the management server during the registration process.
4. After registration, the IP address can move to another network interface.
5. Verify connectivity between Content Gateway and the management server.

Registering Content Gateway

Register Content Gateway in the Content Gateway manager:

1. Go to the **Configure > My Proxy > Basic > General** page.
2. In the Networking section, enable **Web DLP > Integrated on-box** if needed.

   If a change was made, restart Content Gateway when prompted.
3. Go to the **Configure > Security > Web DLP** page and enter the IP address of the management server.
4. Enter a user name and password for a Forcepoint Security Manager administrator with Deploy Settings privileges in the Data Security module.
5. Click **Register**.
6. Go to the **Configure > My Proxy > Basic** page and click **Restart** to restart the Content Gateway machine.

Enabling web DLP

After Content Gateway has registered with Forcepoint DLP, use the Content Gateway manager to perform the following steps:

1. Go to the **Configure > Security > Web DLP** page.
2. Enable **Analyze FTP Uploads** to send FTP uploads to web DLP components for analysis and policy enforcement.
3. Enable **Analyze Secure Content** to send decrypted HTTPS posts to web DLP components for analysis and policy enforcement.

   This option requires that SSL Manager be enabled. See the Content Gatweway Manager Help for details.
4. Click **Apply** and restart Content Gateway.

Configure the Content Gateway policy engine

When Content Gateway is registered with the management server, a Content Gateway module is added to the System Modules in the Data Security module of the Forcepoint Security Manager.

By default, this agent is configured to monitor web traffic, not block it, and for a default violation message to appear when an incident is triggered. To continue using this default behavior, no Content Gateway configuration changes are needed. Simply deploy settings in the Security Manager to activate the default configuration.

To instead block web traffic that breaches policy, or to customize the violation message, do the following:

1. Log on to the Data Security module of the Security Manager.
2. Go to the **Settings > Deployment > System Modules** page.
3. Select the Web Content Gateway module in the tree view (click the module name itself, not the plus sign next to it).

   It will be listed as "Forcepoint Web Security Server on <*FQDN*> **(**<*PE_version*>**)**," where <*FQDN*> is the fully-qualified domain name of the Content Gateway machine and <*PE_version*> is the version of the Content Gateway policy engine.
4. Select the HTTP/HTTPS tab to configure HTTP(S) blocking behavior.

   Select **Help** > **Explain This Page** for instructions for each option.
5. Select the FTP tab to configure FTP blocking behavior.

   Select **Help** > **Explain This Page** for instructions for each option.
6. Click **Save** to save the changes.
7. Click **Deploy** to deploy the settings.

Important

Even if the default configuration is not change, it is still necessary to click **Deploy** to finalize the Content Gateway deployment process.

Set up Content Gateway

Additional Content Gateway configuration is performed in the Content Gateway manager:

- Log onto Content Gateway Manager and run a basic test (Getting Started)
- If there are multiple instances of Content Gateway, consider configuring a managed cluster.
- Configure protocols to proxy in addition to HTTP:

- HTTP (SSL Manager)
- FTP

- Complete the explicit or transparent proxy deployment.
  - Content Gateway explicit and transparent proxy deployments
  - Explicit proxy
  - Transparent proxy
- If proxy user authentication will be used, configure user authentication.
- If content caching was enabled during installation, configure content caching.

After the base configuration has been tested, consider these additional activities:

- In explicit proxy deployments, customize the PAC file.
- In transparent proxy deployments, use ARM dynamic and static bypass, or use router ACL lists to bypass Content Gateway (see the router documentation).

5 Configuring the Analytics Engine

Configure the analytics engine, incident risk reporting, and risk-related policies in the Data Security module of the Forcepoint Security Manager.

1. Go the **Settings > Deployment > System Modules** page.
2. Make sure the analytics engine module appears in the tree, then:
   a. Click the module to view details.
   b. If needed, change the module name and description.
3. Go to the **Settings > General > Reporting** page to configure the Top Risks report derived from the user analytics.
   a. Specify the risk scores to show in the report and on the dashboard.
   b. Define the organization's typical work week to help identify aberrant behavior.
4. For optimal accuracy and efficacy, go to the **Main > Policy Management > DLP Policies** page and add the following policies:
   - Disgruntled Employee
   - Self CV Distribution
   - Password Files
   - PKCS #12 Files
   - Deep Web URLs
   - Email to Competitors

     Be sure to provide the competitors' domain names (case-insensitive, separated by semicolons).
   - Suspected Mail to Self

     Add or edit the sources to monitor via the **possible_sources_domains** parameter in the **Email Similarity** script classifier.
5. Click **Deploy**.

See *Reporting and health monitoring options*, page 16, for information about the reporst that the analytics engine enables.

Reporting and health monitoring options

Once the system is running and capturing metrics, use the following reports to review analytics data:

- On the Main > Status > Dashboard page, monitor the charts under **Data Loss Prevention - Incident Risk Ranking**.
- Use the Incident Risk Ranking report to investigate risks in more detail. To access the report, do either of the following:
  - Click an Incident Risk Ranking dashboard chart.
  - Go to the **Main > Reporting > Data Loss Prevention > Report Catalog** page, then expand the **Security Analytics** tree and select **Incident Risk Ranking**.

To view the health of the analytics engine, go to the **Main > Status > System Health** page, then click the **Analytics Engine** module.

6 Configuring the CASB Service

After receiving CASB service connection information from Forcepoint, first use the Forcepoint Security Manager to enable the CASB service to the cloud service, then enable DLP policy enforcement and discovery for specific cloud applications. See:

- *Connect and enable the CASB service*, page 17
- *Configure DLP policy enforcement*, page 18

Connect and enable the CASB service

To connect and enable the CASB service:

1. Make sure to have the Forcepoint fulfillment message that contains the CASB service activation information at hand.
2. Log on to the Data Security module of the Security Manager.
3. Go to the **Settings > General > Services** page and select the **CASB Service** tab.
4. Click **Connect**.
5. In the CASB Service Connection dialog box, enter the following information from the fulfillment letter:
    a. The **Access key ID** for the account
    b. The **Access key secret** for the account
    c. The **Service URL**
6. Click **Connect**.

When the connection process is complete, the CASB service is automatically enabled and the CASB Service tab is updated.

Configure DLP policy enforcement

To allow the CASB service to apply DLP policies to cloud applications, configure a connection to the organization's cloud applications:

1. On the Settings > General > Services > CASB Service tab, click **Add** under the Cloud Applications list.
2. In the Add Cloud Application window, select an application.

   The CASB portal opens in a new window to allow configuration of the selected application.

   - Pop-up blockers may prevent this tab from opening. If this occurs, disable the pop-up blocker and try again.
   - It may take a while for the tab to open. Wait for the tab to load, then complete the steps below. Do not close the tab while it is still loading.
3. Enter a descriptive **Application name** and **Service description** to help administrators manage the service.
4. Under Connection, enter the Key and Secret to enable a connection to the selected cloud application, then click **Configure Connection**.

   The CASB service uses the connection to retrieve activity logs, scan files at rest, and retrieve user lists. It does not store the user credentials.
5. Under Service Type, specify whether or not to **Enable activity import** and allow the CASB service to access and import user activity logs for the selected cloud application.
6. Under Mitigation, configure an **Archive folder** within the cloud service for files moved or copied in response to a DLP incident.
7. Under Quarantine, optionally configure messages than can be left in place of quarantined files to explain to users that their file has been moved.
8. Click **Test Connection** to verify that the CASB service is connected to the cloud application, and is able to quarantine and copy files.
9. To save the changes and return to the CASB Service tab, click **OK**.
   - The new application is added to the cloud applications list, which shows the application's name, type, description, and status.
   - The Edit link opens the properties window in the CASB portal, which can be used to update configuration for the application.

Repeat the steps above as many times as needed to enable the CASB service for each cloud application to which DLP policies will be applied.

7 Configuring Third-Party Proxies

Forcepoint DLP Network deployments include the Forcepoint web proxy, Web Content Gateway.

Forcepoint DLP can additionally be configured to integrate with third-party proxies via a ICAP.

This chapter assumes a forward proxy deployment, where the third-party proxy connects to a Forcepoint DLP protector, as recommended in the Forcepoint DLP Deployment Guide.

Instructions for two sample third-party proxies are provided. These are not the only proxies that can be used with Forcepoint DLP. See your proxy's documentation for more detailed information about ICAP integrations.

The protector configuration steps apply regardless of which third-party proxy is used.

See:

- *Configuration example 1: Blue Coat Proxy SG*, page 19
- *Configuration example 2: Squid*, page 26
- *Configure the protector for ICAP*, page 26

A reference of error and response codes is available at the end of this chapter. See *ICAP server error and response codes*, page 27.

Configuration example 1: Blue Coat Proxy SG

Follow the instructions in the Blue Coat installation guide to set up an initial ProxySG configuration with a direct serial port connection. This process requires the following information:

1. IP address and netmask of the main interface
2. Default gateway IP address
3. DNS server IP address
4. Console user name and password
5. Enable password

Once the initial configuration is complete, configure the second interface on the Blue Coat proxy for use with the Forcepoint DLP ICAP server:

1. Log on to the ProxySG management console as described in the Blue Coat installation guide.
2. Configure Adapter #1 with the IP address and netmask of the ICAP interface using the steps in the “Adapters” section of the Blue Coat configuration guide.

   (Adapter #0 is configured during the serial port configuration)

Enabling HTTPS forward proxy configuration

To enable scanning of HTTPS posted documents, the ProxySG must be configured for HTTPS forward proxy.

To configure the HTTPS forward proxy, follow the steps in the following sections of the Blue Coat configuration guide:

1. Setting up the SSL proxy in transparent proxy mode
2. Creating an issuer keyring for SSL interception
3. Downloading an issuer certificate

This guide can be found in the Documentation section at https://bto.bluecoat.com.

Configuring the protector for ICAP

Configure the protector to use ICAP in the Data Security module of the Forcepoint Security Manager:

1. Go to **Settings > Deployment > System Modules** page.
2. Expand the node for a protector instance.
3. Select the ICAP server for the selected protector.

For more information, see “Configuring ICAP” in the Forcepoint DLP Administrator Help.

Configuring the ICAP service on Blue Coat

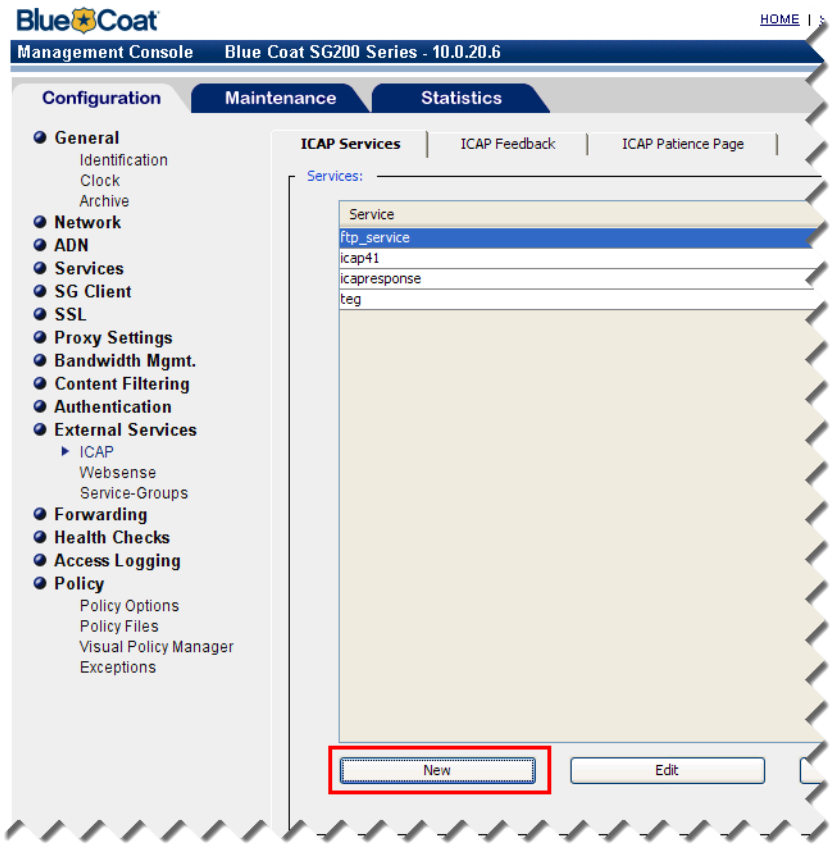
This procedure assumes the ProxySG is operating minimally with only the initial configuration, and that the administrator performing the procedure is logged on to the Blue Coat management console.

If the deployment includes multiple protectors with ICAP servers, create a unique ProxySG service for each one.

To configure the ProxySG ICAP service:

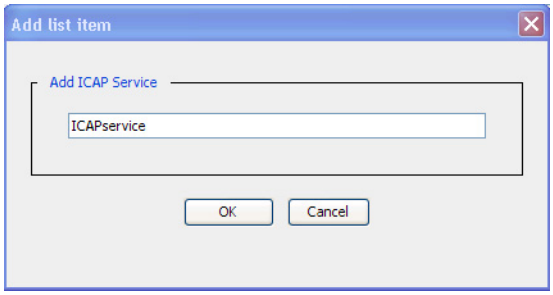
1. In the Blue Coat management console, go to the **Configuration > External Services > ICAP** page. The ICAP Services tab is selected by default.

2. To add a new service, click **New**.

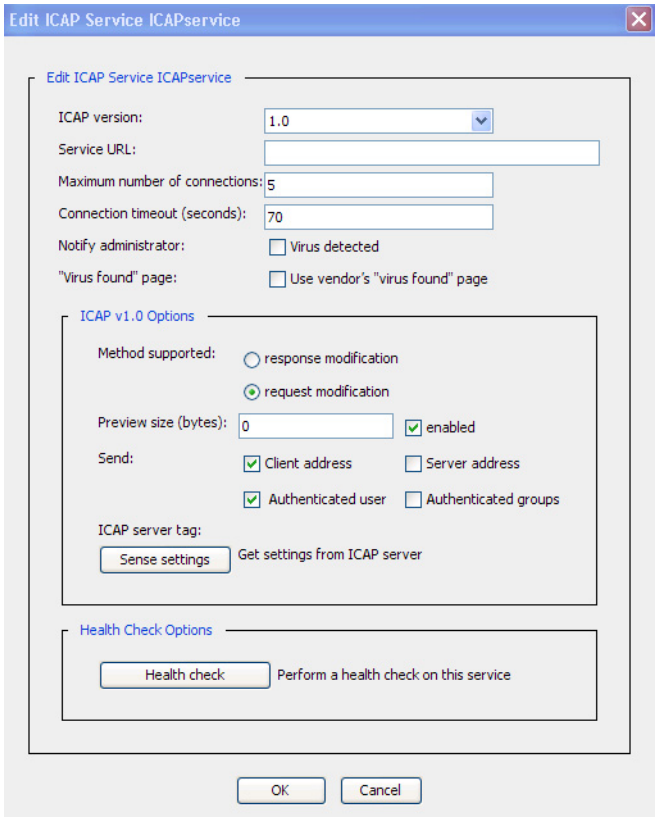


The Add list item window appears.

3. In the **Add ICAP Service** field, enter an alphanumeric name, then click **OK**.



4. In the Services list, select the new ICAP service name and click **Edit**.



5. In the Edit ICAP Service dialog box, enter the **Service URL**.

   This includes the URL schema, the ICAP server hostname or IP address, and the ICAP port number.

   Use different service URLs to distinguish between encapsulated protocols. For example:

   ```
   icap://10.1.1.1/reqmod/ftp
   ```

6. Specify the **Maximum number of connections** between the ProxySG and the ICAP server. This can be any number between 1 and 65535 (default 5).
7. Specify the **Connection timeout** period in seconds.
   - This is the number of seconds the ProxySG waits for replies from the ICAP server.
   - It can be any number between 60 and 65535 (default 70).
8. Next to Notify administrator, select **Virus detected** to send an email message to the administrator if the virus scan detects a match.

   The notification is also sent to the Event Log and the Event Log email list.
9. Next to Method supported, select **request modification**.
10. For the Send options, select **Client address**, **Authenticated user**, or both.
11. (*Optional*) Click **Sense settings** to automatically configure the ICAP service using the ICAP server parameters.

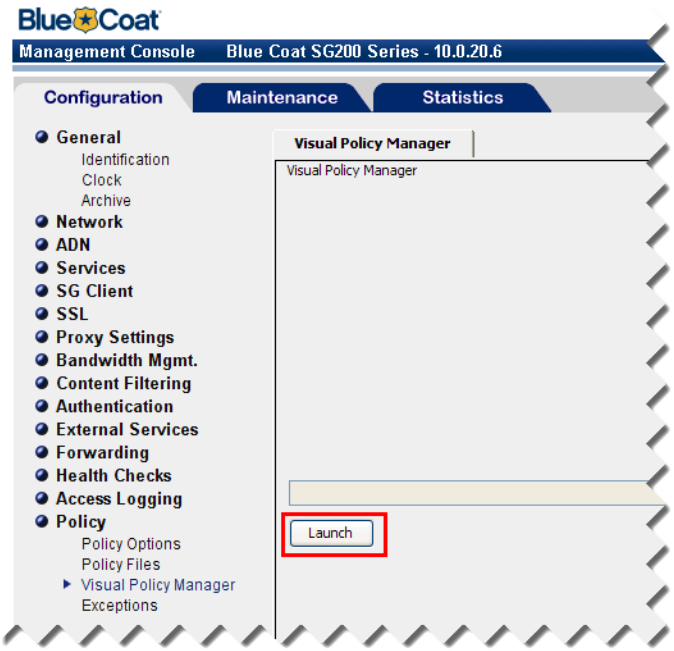
12. Click **OK**, then click **Apply**.

Setting up forwarding

The procedure in this section assumes that ProxySG is operating with initial configuration settings and ICAP configuration, and that the administrator performing the procedure is logged on to the Blue Coat management console.

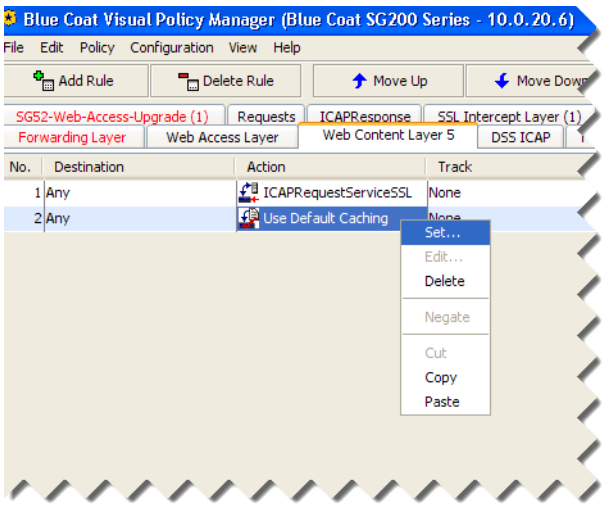
To configure the ProxySG ICAP policies:

1. Go to the **Configuration > Policy > Visual Policy Manager** page, then click **Launch**.

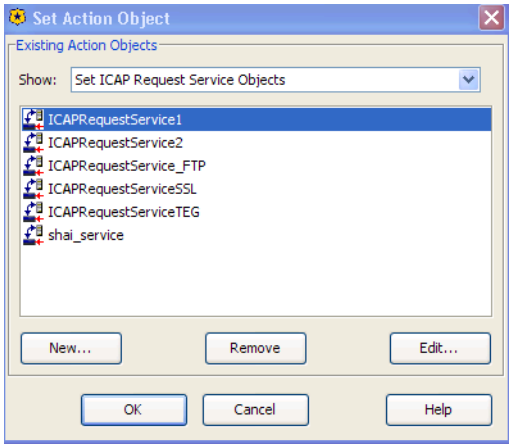


2. In the Visual Policy Manager, select **Add a policy**.
3. To add a content layer, click the **Web Content Layer** tab, then click **Add Rule**.
4. Enter a policy name, then click **OK**.

5. Right click the **Action** option and select **Set** from the menu.

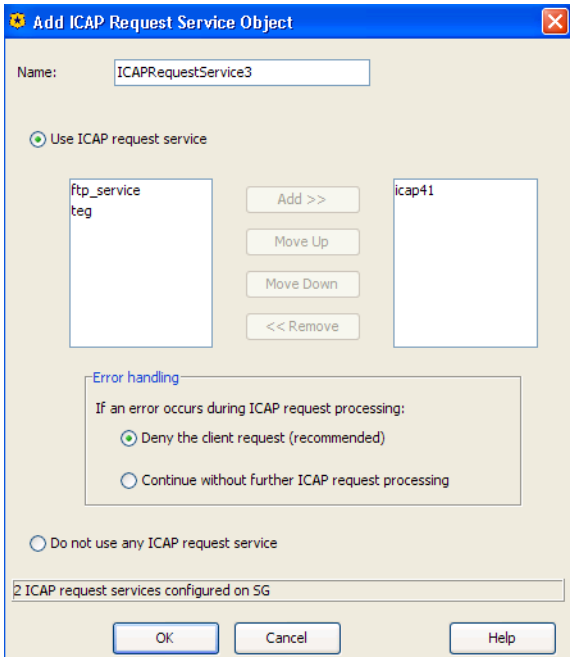


6. Under Show, select **Set ICAP Request Service Objects**.



7. Click **New > Set ICAP Request Service**.
8. Enter a name for the ICAP request service.

9. Select **Use ICAP request service**, choose a service from the drop-down list, and click **Add**.



10. Click **OK** twice.
11. Click **Install policy**.

Configuring HTTPS policies

To configure an HTTPS policy, follow the steps in these sections of your Blue Coat configuration guide:

1. Using the SSL intercept layer
2. Using the SSL access layer

Find this guide in the Documentation section of https://bto.bluecoat.com.

Recommended Blue Coat filtering rules

The table below lists filters that should be applied to the Blue Coat policy layer before the data is sent to the protector's ICAP server.

Protocol	Filter	Condition
HTTP	GET	Allow always
HTTP	POST < 10MB	ICAP REQMOD
HTTP	POST > 10MB	Block/Allow always
HTTP	PUT < 10MB	ICAP REQMOD

Protocol	Filter	Condition
HTTP	PUT > 10MB	Block/Allow always
HTTPS	GET	Allow always
HTTPS	POST < 10MB	ICAP REQMOD
HTTPS	POST > 10MB	Block/Allow always
HTTPS	PUT < 10MB	ICAP REQMOD
HTTPS	PUT > 10MB	Block/Allow always
FTP	PUT < 10MB	ICAP REQMOD
FTP	PUT > 10MB	Block/Allow always

Configuration example 2: Squid

Configure the Squid proxy to send requests to the ICAP server that is part of the Forcepoint DLP protector.

This example is for Squid-3.1:

```
icap_service service_req reqmod_precache 1
icap://<protector_IP>:1344/reqmod
adaptation_access service_req allow all
```

This example is for Squid-3.0:

```
icap_service service_req reqmod_precache 1
icap://<protector_IP>:1344/reqmod
icap_class class_req service_req
icap_access class_req allow all
```

For full ICAP configuration details for Squid, see http://wiki.squid-cache.org/Features/ICAP?highlight=%28faqlisted.yes%29.

Configure the protector for ICAP

Configure the protector to use ICAP in the Data Security module of the Forcepoint Security Manager:

1. Go to **Settings > Deployment > System Modules** page.
2. Expand the node for a protector instance.
3. Select the ICAP server for the selected protector.

For more information, see “Configuring ICAP” in the Forcepoint DLP Administrator Help.

ICAP server error and response codes

Response Condition	Forcepoint Block Decision	Control Exceeds Size Limit	Error Condition
Condition	“pana_response”	“huge_content”	“pana_error”
Error Code	500	500	512
=“X-Response-Info”	PA-block		PA-error
=“X-Response-Desc”	Forcepoint blocked		
Plain URL	/usr/local/spicer/etc/blockmessageexample.plain		
Markup URL	/usr/local/spicer/etc/block-messageexample.markup		

8 Configuring User Directory Integration

Import information from a supported directory server, such as Microsoft Active Directory or IBM Domino, into Forcepoint DLP in order to:

- Allow administrators to use their network credentials to log on to the Forcepoint Security Manager.
- Include user details in analysis.
- Enhance the incident details displayed to administrators.

For configuration instructions, see:

- *Define user directory settings*, page 29
- *Configure the directory import*, page 31
- *Rearrange user directory servers*, page 31

Define user directory settings

Use the Forcepoint Security Manager to configure Forcepoint DLP to import user directory data.

Configuring general settings

1. Log on to the Data Security module of the Security Manager.
2. Go to the **Settings > General > User Directories** page.
3. Click **New** in the toolbar at the top of the page.
4. At the top of the Add/Edit directory server page:
   a. Enter a display **Name** for the directory server. This is displayed in the list on the User Directories page.
   b. Mark the **Enabled** check box.
   c. Select the directory **Type** from the drop-down list: Active Directory, Domino, or Comma-Separated Values (CSV) File.

Configuring connection settings

Connection settings vary, based on whether a network user directory or a CSV file was selected in the previous section.

For network user directories (Active Directory or Domino), enter:

1. The **IP address or hostname** and **Port** to use to connect to the user directory server.
2. Enter the **User distinguished name** and **Password** for an account with directory server access.
3. To secure the connection to the directory server, mark **Use SSL encryption**.
4. To prompt Forcepoint DLP to follow server referrals, if they exist, mark **Follow referrals**.
5. Click **Test Connection** to verify the connection to the directory server.
6. Continue with the next section,

For CSV files:

1. Enter the **Path** to the file.
2. Enter the **User name** and **Password** for an account with at least read permissions to the file.
3. Click **Test Connection** to verify that Forcepoint DLP can read the file.
4. Click **OK**.

Configuring directory usage settings

This section applies only to network user directories (Active Directory or Domino).

1. Mark **Get user attributes** to retrieve specified user attributes from the directory server.
2. Use the **Attributes to retrieve** field to enter the user attributes that should be collected for all users. Use commas to separate entries.
3. If the directory includes user photos, enter the photo attribute name in the **User's photo attribute** field.
4. Under Test Attributes, enter a **Sample email address** to use to perform an import test. Use a valid email address from the directory.
5. Click **Test Attributes** to retrieve user information that corresponds to the sample email address.
6. Click **OK**.

The server is listed on the User Directories page.

Configure the directory import

By default, Forcepoint DLP imports data from user directory servers daily at a set time. To change the import time:

1. In the Security Manager, go to the **Settings > General > User Directories** page.
2. Click the **Import daily at...** link (to the left of the page, above the list of directories).
3. Set a new time or schedule, then click **OK**.

In addition to the scheduled import, user directory information can also be imported manually. To start the import process at any time:

1. Go to the User Directories page.
2. Select a directory server in the list.
3. Click **Import Now** in the toolbar at the top of the page.
4. Click **Yes** to continue.

To view user directory entries after they have been imported:

1. Go to the **Main > Policy Management > Resources** page.
2. Select **User Directory Entries**.

Rearrange user directory servers

If more than one user directory has been configured, users are imported from directories in the order listed on the User Directories page. If a user is in more than one directory, the first directory record takes precedence.

To rearrange the order of the servers:

1. Go to the **Settings > General > User Directories** page.
2. Click **Rearrange Servers** in the toolbar at the top of the page.
3. Select a server and use the arrow buttons to move it up or down the list.
4. Click **OK**.

9 Getting Started with File Discovery

Discovery is the act of determining where sensitive content is located in the organization. If the network includes Windows or Novell shared drives, administrators can create a data discovery task that describes where and when to discover content on the drives. Discovery can also be performed on Exchange servers and IBM Domino and Notes.

For more information, see:

- *Performing discovery on Novell file systems*, page 33
- *Performing discovery on Windows NFS shares*, page 35
- *Performing discovery on Exchange servers*, page 44
- *Performing discovery on IBM Domino and Notes*, page 48

Performing discovery on Novell file systems

The following definitions are used in this section:

- Using Novell Directory Services (NDS), a network administrator can set up and control a database of users and manage them using a directory with an easy-to-use graphical user interface. Users at remote locations can be added, updated, and managed centrally. Applications can be distributed electronically and maintained centrally. The concept is similar to Microsoft's Active Directory.
- Novell Client for Windows allows Windows machines to authenticate through NDS and access shared resources on Novell servers.

Prepare the Novell server

1. Create a user account in NDS.
   - This user will be used by the Forcepoint DLP crawler agent to authenticate with Novell eDirectory and access files and folders.
   - The user account must have the same logon name and password as the Forcepoint DLP service account.
2. Make sure the newly created user has at least "Read" permissions on all files and folders on which discovery will be run.

Prepare the Forcepoint DLP server

Step 1: Install the Novell Client

1. Download the latest Novell Client for Windows from the Novell website:

   http://www.novell.com/products/clients/
2. Run **setupnw.exe** and select **Custom Installation**.
3. Make sure **Novell Distributed Print Services** is not selected, then click **Next**.
4. Make sure **NetIdentity Agent** and **NMAS** are selected, then click **Next**.
5. Select **IP** and **IPX** protocols, then click **Next**.
6. Select **eDirectory**, then click **Next**.
7. Wait for the installation to complete, then reboot the server.

   After the reboot, the Novell logon window should appear instead of the regular Windows logon.

Step 2: Prepare the system for discovery

1. Log on to Windows and Novell using the Forcepoint DLP service account (it should be the same user for both platforms as stated above).
2. On the eDirectory tab, select the tree and its relevant context for the folders on which discovery will be run.
3. Right-click the Novell icon in the task bar and select **Properties**.
4. Click **Cancel**.
5. Ensure the files on which discovery will be run are accessible from Windows by UNC (for example, \\NovelFileSrv\vol1\Data).
6. Right-click the Novell icon in the task bar and select **Novell Connections**.
7. On all connections, click **Detach** until no connections remain.

Step 3: Create a new discovery task

1. Log on to the Data Security module of the Forcepoint Security Manager.
2. Go to the **Main > Policy Management > Discovery Policies** page.
3. Select **Add Network Task > File System Task**.
4. On the Networks page, click **Edit** to select the Novell server's IP address.
5. Click **Advanced**, then add the Novell access port number **524**.
6. On the Scanned Folders page, use the Forcepoint DLP service account for authentication.
7. Configure the remaining discovery options as needed.

Performing discovery on Windows NFS shares

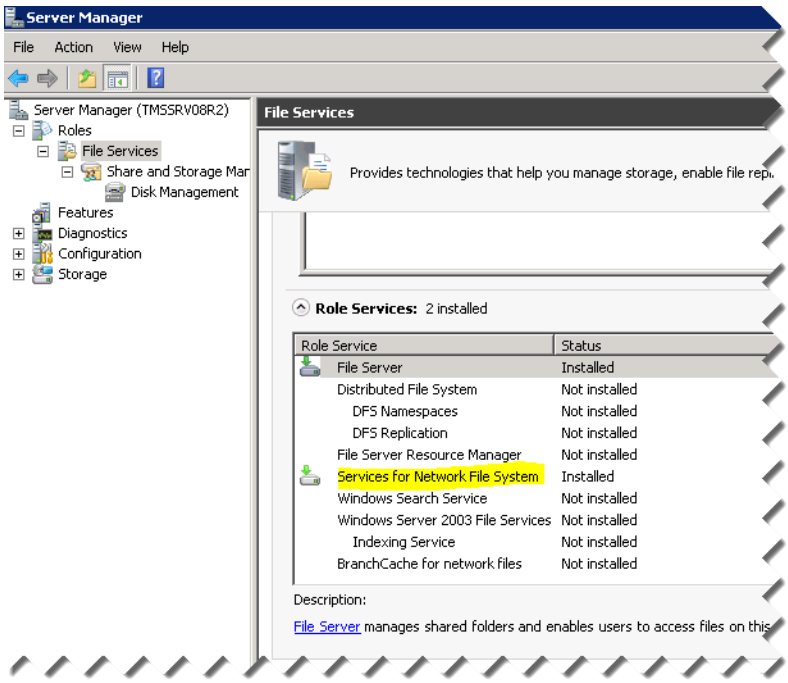
If you want to perform data discovery on Windows file shares, you need to install NFS client on your Forcepoint DLP server. If you have more than one Forcepoint DLP server, install NFS client on the one with the crawler you will use to perform discovery.

Do not install Forcepoint DLP on the same machine as the NFS server.

Configure the Forcepoint DLP server

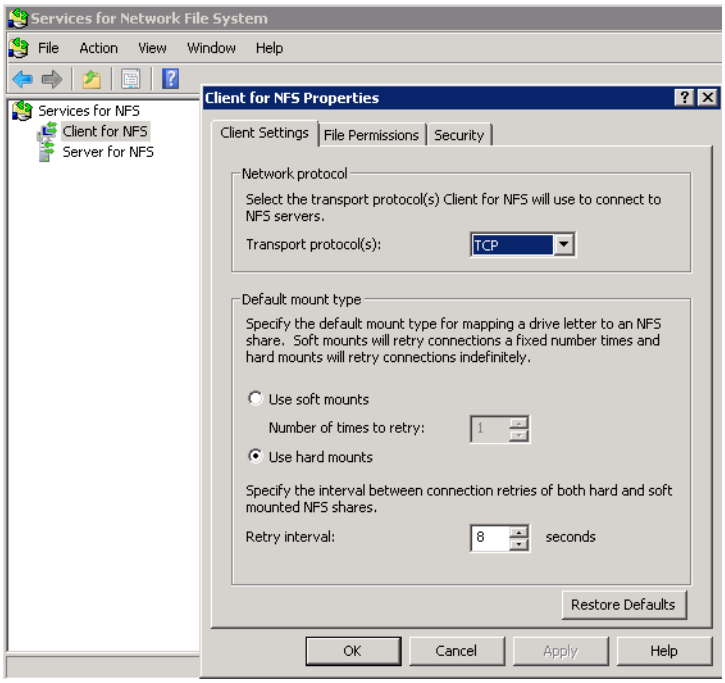
The instructions in this section are for supported versions of Windows Server 2008 R2.

1. To activate Network File System (NFS) on the Forcepoint DLP server, open the Server Manager.
2. Select **Server > Role Services > Add Role > Services for Network File System**.



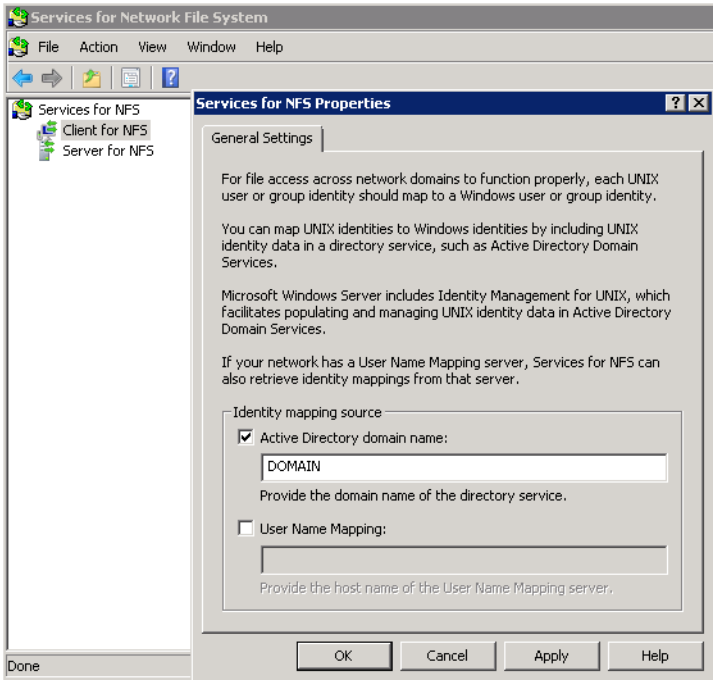
3. Go to **Start > Administrative Tools > Services for Network File System (NFS)**.

4. Right-click **Client for NFS** and select **Properties**.



5. On the Client Settings tab, set the Transport protocol to **TCP** and the Default mount type to **Use hard mounts**.
6. On the File Permissions tab, set all file permissions to **Read, Write, and Execute**.
7. Click **OK**.
8. Right-click **Services for NFS** again and select **Properties**.

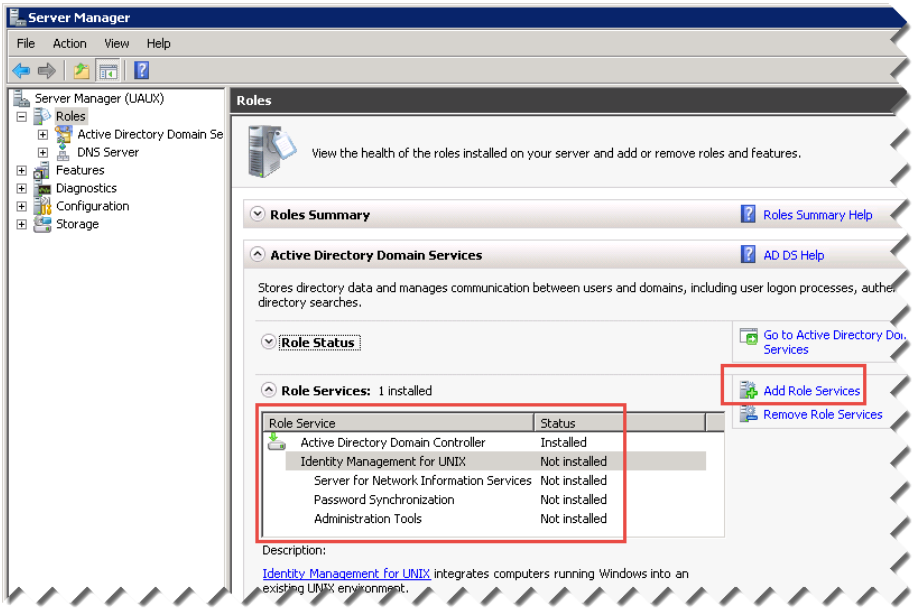
9. Mark the **Active Directory domain name** check box and enter a **Active Directory domain name**.



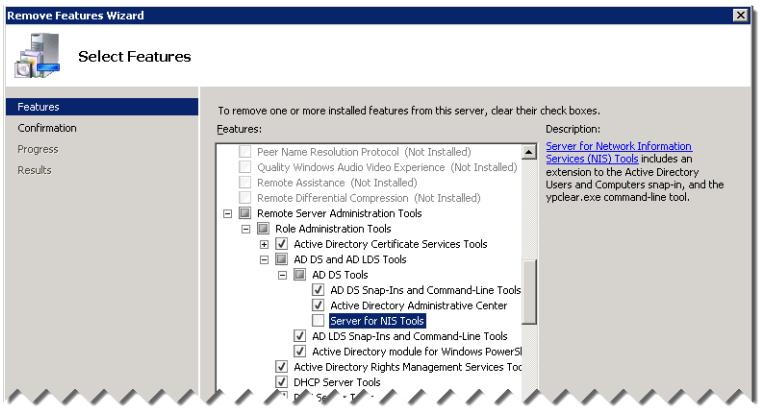
10. Click **OK**.

Configure the domain controller

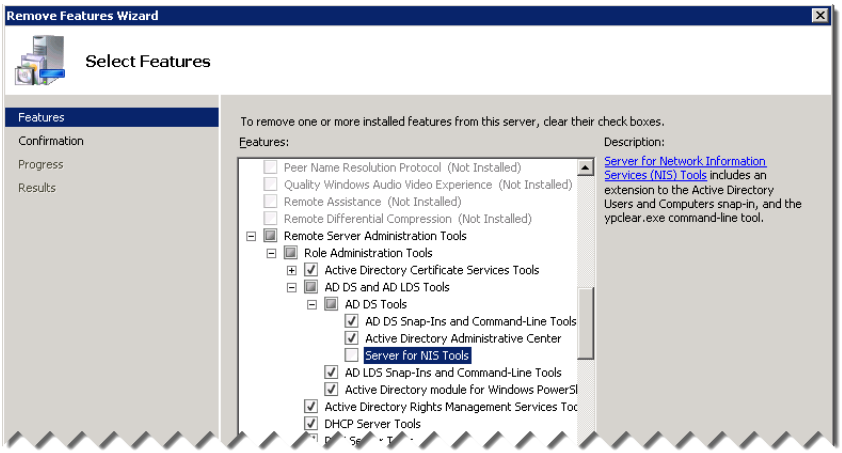
1. Log onto a Domain Controller to configure Active Directory to use Identity Management for UNIX.



2. Remove any installed NIS tools under **Server Manager > Features**.



3. Click **Add Role Services** to launch the Add Role Services wizard.
4. Select **Identity Management for UNIX**.



5. Click **Next**, then click **Install**.
6. Reboot the server when prompted.

Identity Management for UNIX is now installed.

Configure Identity Management for UNIX

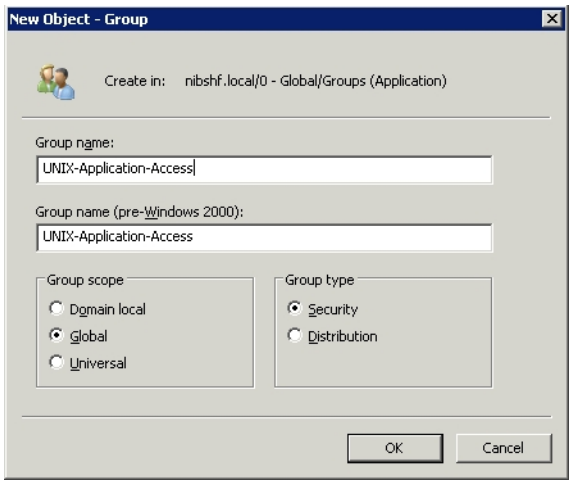
Identity Management for UNIX requires:

1. A primary group that includes all LDAP users
2. A bind or anonymous bind user

Create the primary group for all UNIX user accounts

1. On the Domain Controller, navigate to **Start > Administrative Tools > Active Directory Users and Computers**.

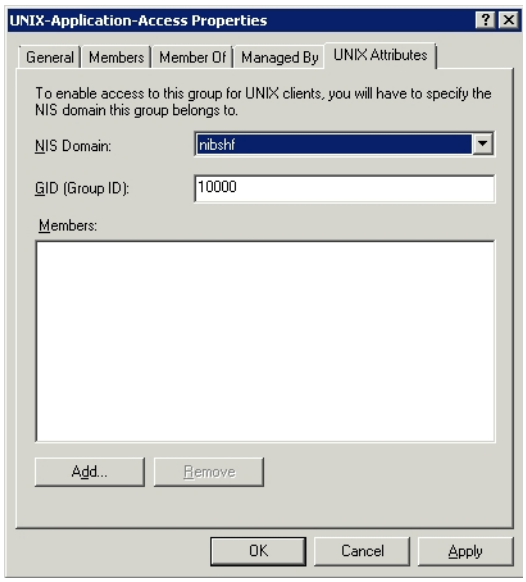
2. Navigate to the Organization Unit (OU) that will contain the group, then select **Action > New > Group**.
3. Under Group Scope, select **Global**.
4. Under Group type, select **Security**.
5. Click **OK**.



6. Right-click the new group and select **Properties**.
7. On the UNIX Attributes tab, select the **NIS Domain** from the drop-down menu and accept the default **Group ID (GID)**, then click **OK**.

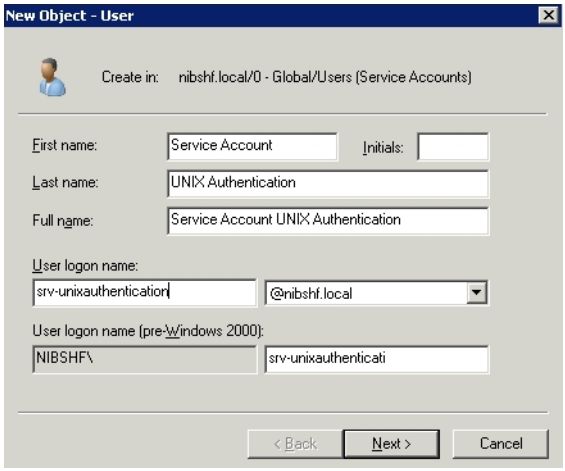
Note

If the GID is not 10000, there is already a UNIX-enabled group in the directory. The GID must be unique and match the GID of the UNIX Group.



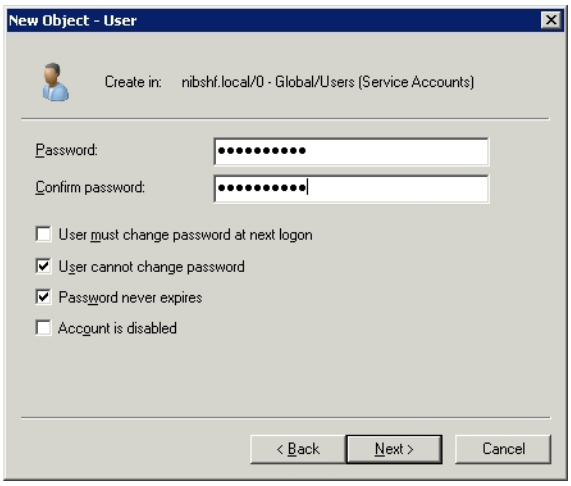
Create a new UNIX user / service account

1. Still in the Active Directory Users and Computers tool, select the OU that will hold the UNIX Service Account, then **Action > New > User**.



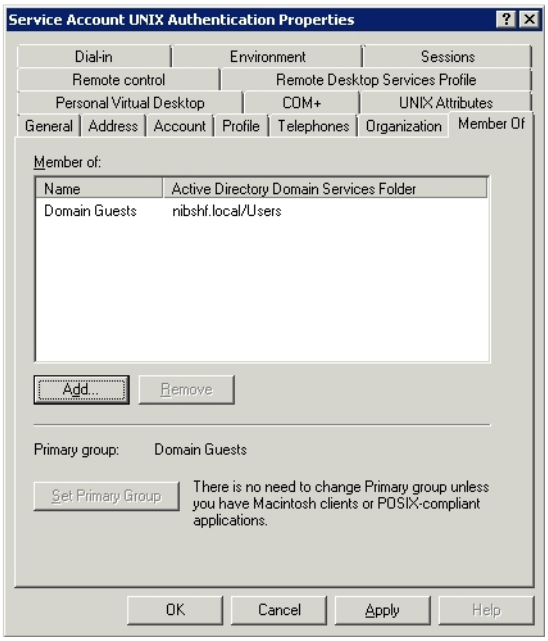
2. Enter a **Password** and select the following:
   - User cannot change password
   - Password never expires

   All other features must be disabled.



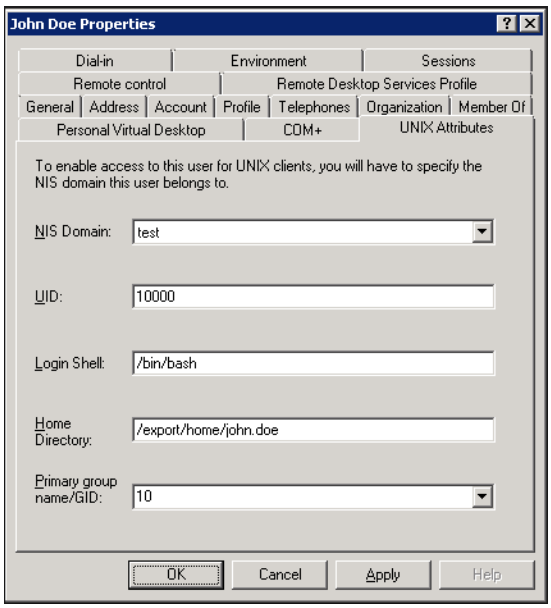
3. Click **Next**, then click **Finish** to create the account.
4. Right-click the new user and select **Properties**.
5. On the Member Of tab, click **Set Primary Group** and add the group created in the previous section.

6. Remove the **Domain Users** group.



7. Select the **UNIX Attributes** tab.
8. Set the following parameters, then click **OK**.
   a. Select the user's **NIS Domain**.
   b. Enter the **UID** on the UNIX computer that matches the UID of the user on the UNIX machine.
   c. Enter the user account **Login Shell**.
   d. Enter the user **Home Directory** on the UNIX computer.

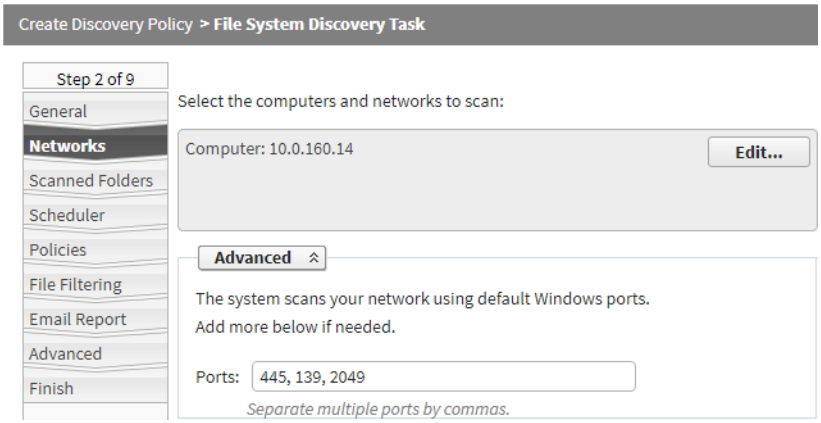
e. Enter the **Primary group name/GID** of the user configured previously.



Configure Forcepoint DLP to scan NFS

1. Log on to the Data Security module of the Security Manager.
2. Create a data discovery policy. (See Creating a data discovery policy for instructions.)
3. On the Main > Policy Management > Discovery Policies page, select **Add network task > File System Task**.
4. On the General page, add a name and description for the discovery task and select the crawler hosted on the machine that also hosts the NFS client.

   This is the crawler that will perform the file system discovery.
5. On the Networks page, click **Advanced** and add port **2049** to the existing list of scanned ports.



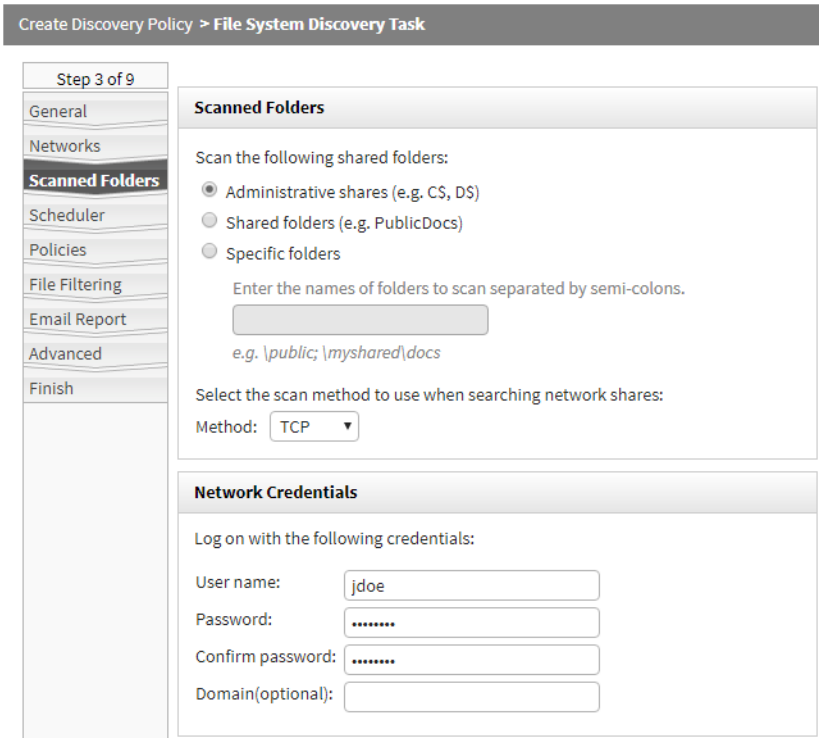
6. On the Scanned Folders page, specify the shares to scan and the user name and password of the Windows user mapped to the UNIX account as follows:

> **Note**
> Network discovery has a limit of 255 characters for the path and file name. Files contained in paths that have more than 255 characters are not scanned.

   a. Select the Shared Folders to scan:
      - Select **Administrative shares** to scan administrative share drives such as C$.
      - Select **Shared folders** to scan shared folders such as PublicDocs.
      - Select **Specific folders** to scan one or more specified folders, then enter one or more folder names. Use semi-colons to separate entries.

   b. Select the Method to use when scanning network shares: **TCP** or **ICMP**.

   c. Enter the User name and Password of the Windows user that was previously mapped to a UNIX account.



7. Deploy your changes.

For more information on the wizard for creating file system discovery tasks, see File System tasks.

Performing discovery on Exchange servers

Forcepoint DLP can be used to perform discovery on Microsoft Exchange servers. See:

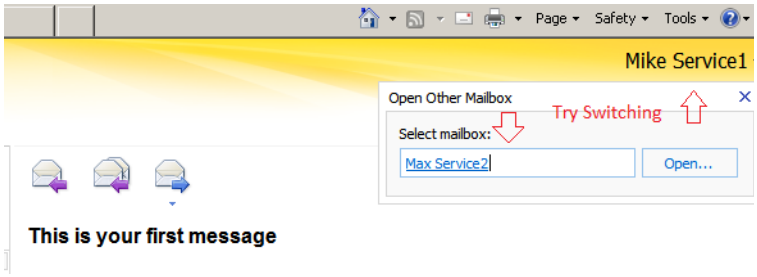
- *Prepare to run discovery on Exchange Online 365*, page 44
- *Prepare to run discovery on Exchange 2013*, page 45
- *Prepare to run discovery on Exchange 2010*, page 47

Prepare to run discovery on Exchange Online 365

1. Create or identify an Exchange 365 account for Exchange discovery scanning.
2. Grant the account one of the following roles to allow the Forcepoint DLP crawler to discover messages and display results:
   - Organization Management
   - View Only Organization Management

   The crawler account should now be able to access Exchange via Outlook Web App (OWA) and move between the mailboxes intended to be scanned during the discovery.

   Log onto OWA with this account, and try switching between mailboxes as shown below:



3. Configure Exchange impersonation for the service account used for discovery:
   a. Open the Windows PowerShell as administrator.
   b. Enter the following command:

      ```
      $LiveCred = Get-Credential
      ```

   c. When prompted for credentials, enter the user name (email address) and password for the Exchange 365 account to be used for discovery.
   d. Enter the following command:

      ```
      $Session = New-PSSession -ConfigurationName
      Microsoft.Exchange -ConnectionUri https://
      ps.outlook.com/powershell/ -Credential $LiveCred -
      Authentication Basic -AllowRedirection
      ```

      Read and ignore any warning that result.
   e. Enter the following commands:

```
Import-PSSession $Session
Set-ExecutionPolicy RemoteSigned
```

f. When prompted to change the execution policy, respond **Yes**.

g. Enter the following command:

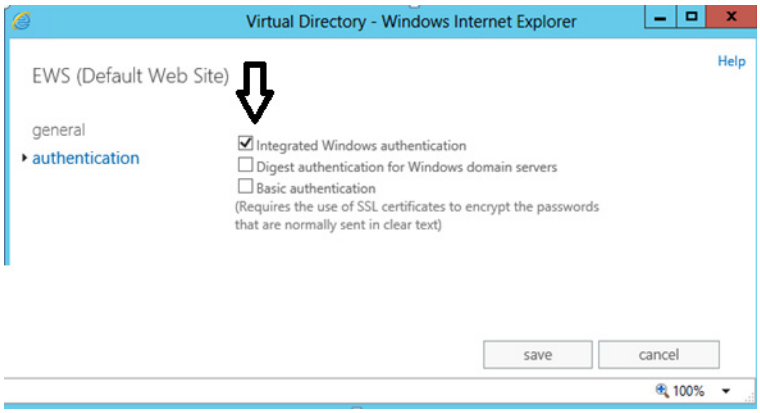
```
Enable-OrganizationCustomization
```

h. Enter the following command:

```
New-ManagementRoleAssignment –Name "Impersonation-
Forcepoint" –Role "ApplicationImpersonation" –User
user@mydomain.onmicrosoft.com
```

Here, “Impersonation-Forcepoint” is the name of the administrator role being created for the Exchange 365 account and “user@mydomain” is the user name that will be used for the discovery task.

4. To configure an Exchange discovery task:
   a. Log on to the Data Security module of the Forcepoint Security Manager.
   b. Go to the **Main > Policy Management > Discovery Policies** page, then click **Add network task > Exchange Task**.
   c. Complete the wizard as explained in the Forcepoint DLP Administrator Help. On the Exchange Servers page, enter the credentials set up above.
5. Make sure that Integrated Windows authentication is turned on (default). If it is not:
   a. In the Exchange admin center, go to **servers** > **virtual directories** > **EWS (Default Web Site)**.
   b. Select **Integrated Windows authentication**.
   c. Click **Save**.

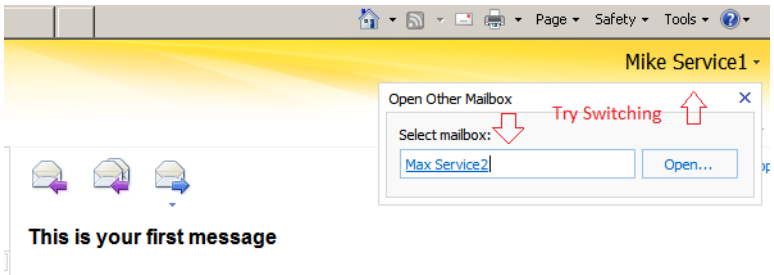


Prepare to run discovery on Exchange 2013

1. Define a service account for Exchange discovery scanning.
2. Grant the account one of the following roles. This is necessary so that the system can discover messages and display results.
   - Organization Management

- View Only Organization Management

The service account should now be able to access Exchange via Outlook Web App (OWA) and move between the mailboxes intended to be scanned during the discovery. Log onto OWA with this account, and try switching between mailboxes as shown below:



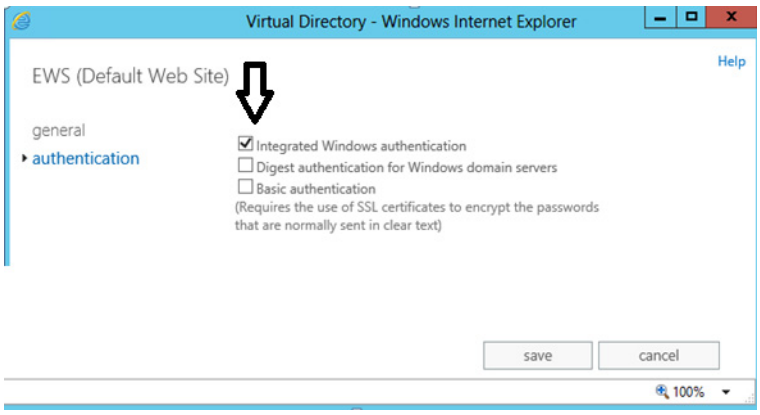
3. Configure Exchange impersonation for the service account used for the discovery:
   a. Open the Exchange Management Shell.
   b. Run the **New-ManagementRoleAssignment** cmdlet to add the permission to impersonate to the specified user.

      For example, to enable a service account to impersonate all other users in an organization, enter the following:

      ```
      New-ManagementRoleAssignment -
      Name:impersonationAssignmentName -
      Role:ApplicationImpersonation -User:ServiceAccount
      ```

   For more information on Exchange impersonation, see msdn.microsoft.com/en-us/library/bb204095.
4. Configure an Exchange discovery task as follows:
   a. Log on to the Data Security module of the Forcepoint Security Manager.
   b. Go to the **Main > Policy Management > Discovery Policies** page, then click **Add network task > Exchange Task**.
   c. Complete the wizard as explained in the Forcepoint DLP Administrator Help. On the Exchange Servers page, enter the credentials set up above.
5. Check that Integrated Windows authentication is turned on (it should be on by default). If it is not:
   a. In the Exchange admin center, go to **servers** > **virtual directories** > **EWS (Default Web Site)**.

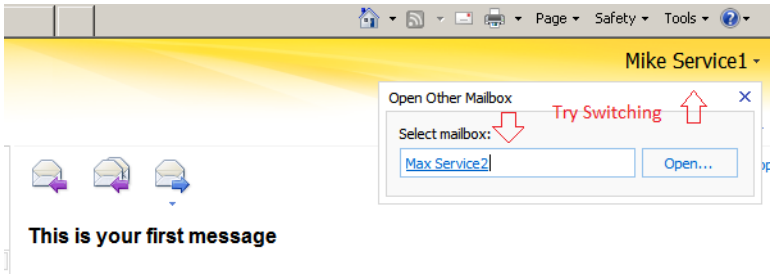
b. Select **Integrated Windows authentication**.



Prepare to run discovery on Exchange 2010

1. Define a service account for Exchange discovery scanning.
2. Grant the account one of the following roles. This is necessary so that the system can discover messages and display results.
   - Exchange Full Administrator
   - Exchange Administrator
   - Exchange View Only Administrator

   The service account should now be able to access Exchange via Outlook Web App (OWA) and move between the mailboxes intended to be scanned during the discovery. Try switching between mailboxes as shown below:



3. Configure Exchange impersonation. Exchange impersonation needs to be enabled for the service account used for the discovery
   a. Open the Exchange Management Shell.
   b. Run the **New-ManagementRoleAssignment** cmdlet to add the permission to impersonate to the specified user.

      For example, to enable a service account to impersonate all other users in an organization, enter the following:

```
New-ManagementRoleAssignment -
Name:impersonationAssignmentName -
Role:ApplicationImpersonation -User:ServiceAccount
```

For more information on Exchange impersonation, see msdn.microsoft.com/en-us/library/bb204095.

4. Configure an Exchange discovery task as follows:
   a. Log on to the Data Security module of the Forcepoint Security Manager.
   b. Go to the **Main > Policy Management > Discovery Policies** page, then click **Add network task > Exchange Task**.
   c. Complete the wizard as explained in the Forcepoint DLP Administrator Help. On the Exchange Servers page, enter the credentials set up above.

Performing discovery on IBM Domino and Notes

Forcepoint DLP can perform discovery on documents stored in an IBM Domino Data Management System (DMS).

Domino discovery treats a document (body and attachments) as one unit. This way, a breach is reported even if the sensitive content is scattered in different parts of the document that individually would not cause an incident.

To perform discovery on documents:

1. Log on to the Data Security module of the Forcepoint Security Manager.
2. Go to the **Main > Policy Management > Discovery Policies** page.
3. Select one of the following:
   - Locate regulatory & compliance data
   - Create custom policy.
4. Complete the steps in the wizard as described in the Forcepoint DLP Administrator Help. Select dictionary, RegEx, fingerprinting, or other classifiers as needed.
5. Go to the **Main > Policy Management > Discovery Policies** page.
6. Select **Add network task > Domino Task**.
7. Complete the steps in the wizard as described in the Forcepoint DLP Administrator Help.
8. To deploy the policy and task to the Domino server, click **Deploy**.

The Domino server will be crawled for sensitive data at the next scheduled time. Incidents are reported in **Main > Reporting > Discovery** reports.