BigFix® Data Leak Prevention Deployment Guide

BigFix, Inc.
Emeryville, CA

Last Modified: 11/12/07
Version 1.0

Contents

BigFix, Inc.

1480 64th Street Suite 200

Emeryville, CA 94608-2017

Contents

Preface

Audience

This document describes the installation and operation of BigFix Data Leak Prevention (DLP). It is intended for BigFix administrators and operators, as well as people evaluating the product.

Organization of this Guide

This guide is composed of four major parts:

- **Introduction**: This section introduces BigFix DLP.
- **Quick Start**: This section provides brief instructions for deploying and using BigFix DLP.
- **Using BigFix Data Leak Prevention**: Three sections provides instructions for performing the most common tasks with BigFix DLP.
- **Frequently Asked Questions**: This section provides answers for frequently asked questions about BigFix DLP.

Conventions Used in this Guide

This document makes use of the following conventions and nomenclature:

Convention	Use
Bold Sans	A bold sans-serif font is used for chapter headers.
Bold text	Bold text typically refers to a program interface.
Italics	Italics are used for BigFix document titles.
`Mono-space`	A mono-spaced font is used to indicate scripts or code snippets.

Versions

The document describes the functionality in BigFix Data Leak Prevention, Version 2.0 and later.

Introduction

Stop data leaks at the source before they get on the network and ruin your organization's reputation. BigFix Data Leak Prevention (DLP) follows the BigFix distributed real-time visibility and control architecture by installing a fast, flexible and effective data leak prevention client on managed devices and managing it by using the BigFix Platform.

Highlights:

- Stops data leaks at their source including data transfers to local ports and storage.
- Recognizes over 300 file types including email, office documents, graphics files, and engineering content in native, compressed, or archived formats.
- Highly customizable & fine-grained policy-based framework.
- Supports multiple compliance standards.
- Real-Time execution and reporting.
  - Logging and audit, violation alerting, full lockdown.
  - Non-intrusive, lightweight operation.
- Active only during data transfer events.
- Intelligent Matching/Detection Engine.
  - Entity/Regex, Keyword, File Metadata.
  - Policies and Signatures Supported.
- Complete mobile, branch office, corporate data leak prevention.
- Superior, highly accurate leak protection—fewest false positives.
- Enterprise-grade to support minimal network impact with central management.
- Supports compliance efforts—reporting, inventory and forensics.
- Integrated with BigFix's Convergent Management Platform:
  - Pervasive real-time visibility and control.
  - Single console, single agent management.
  - Massively scalable architecture.
- Easy deployment and management.

Quick-Start

This procedure assumes that you already have installed BigFix.

1. Obtain a masthead for the BigFix DLP site.

   Email licensing@bigfix.com to request the masthead.

2. Add the BigFix DLP site:

   a. Double-click on the masthead file.

      A dialog box will appear, asking if you want to proceed with adding the site.

   b. Click **Yes**.

   c. Enter your Private Key Password and click **OK**.

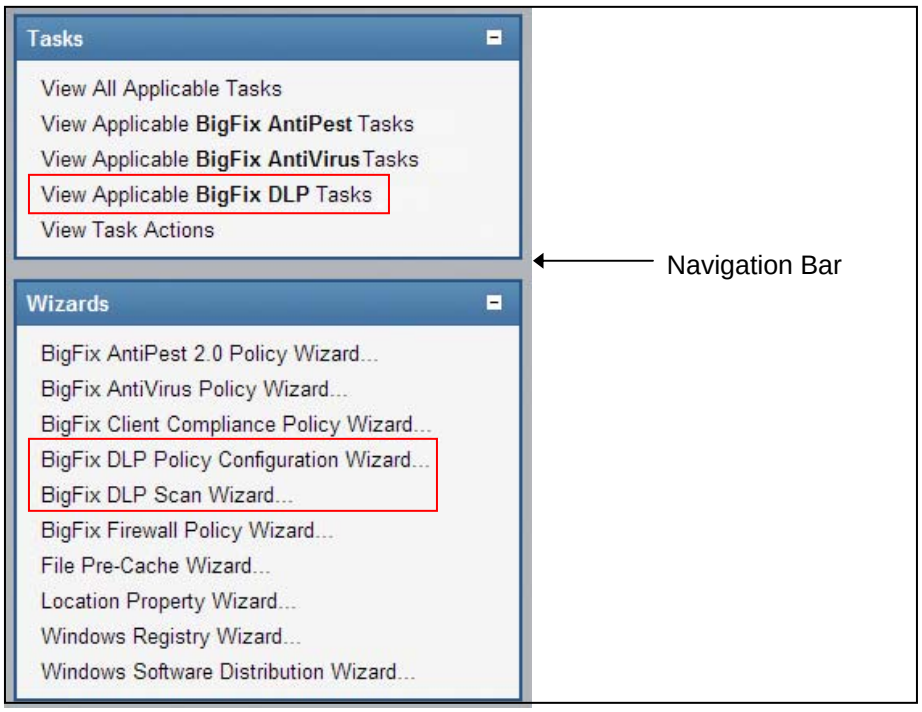
   At this point, the BigFix DLP site will begin the gathering process, in which Fixlets, Tasks, Analyses, etc. are gathered from the central BigFix server.

   When the gathering process is complete, the status will change to **Subscribed**.

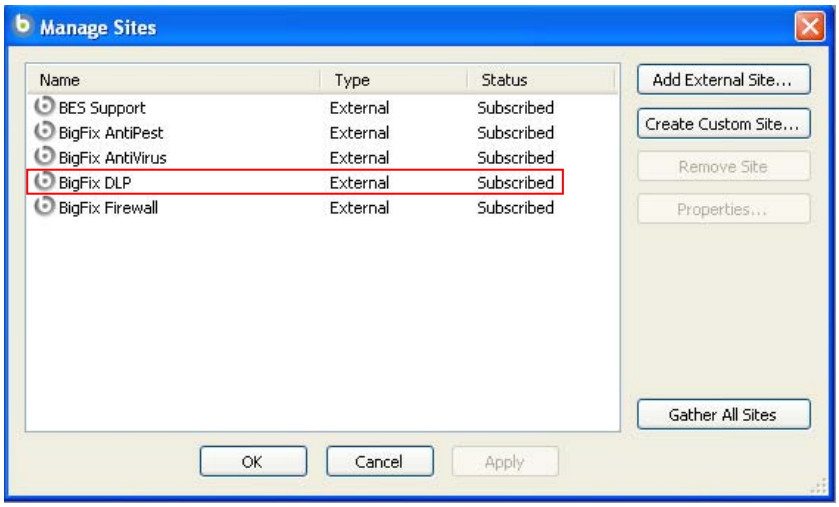
   Refer to the *Console Operators Guide* for more information about mastheads.

   You will see a new BigFix DLP entry in the **Dashboards** menu and links to DLP Tasks and Wizards in your **Navigation Bar**.

Quick-Start



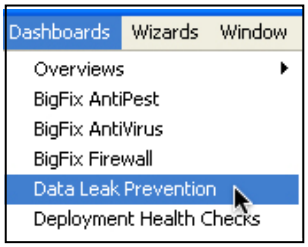
In addition, the DLP site will show as **Subscribed** in the **Manage Sites** dialog.



Using the BigFix DLP Dashboard

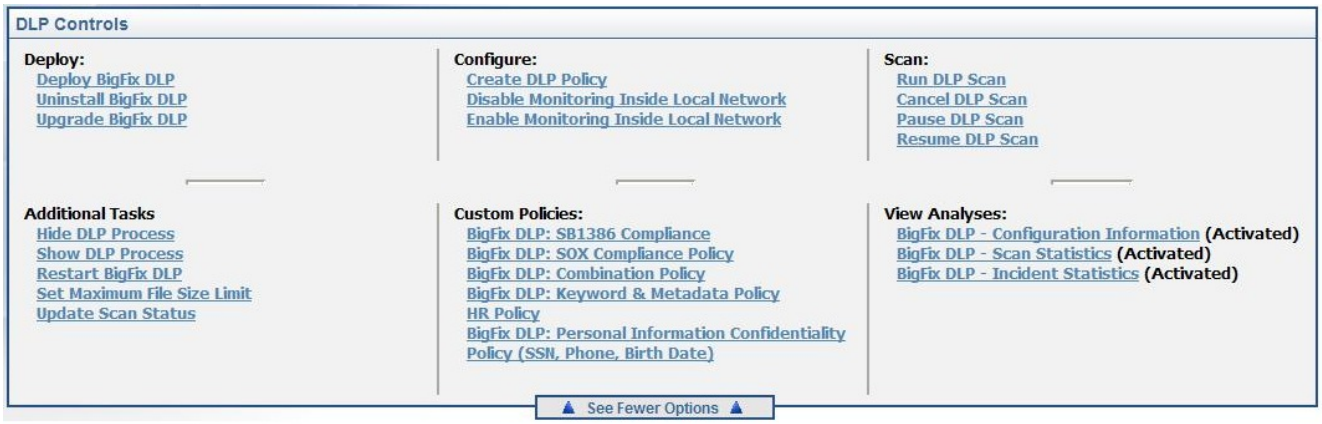
BigFix DLP provides a dashboard view with overview statistics and charts that enable you to gauge the current status of your system and to track statistics as BigFix DLP enforces data leak prevention policies throughout your network. In addition, you can use the Dashboard as a central point to manage important tasks such as deployment, analysis, and configuration.

To open the Dashboard, select **Dashboards > Data Leak Prevention**.



Understanding the BigFix DLP Dashboard Controls

At the top of the Dashboard, you see the BigFix DLP Controls:



The controls that BigFix DLP provides are:

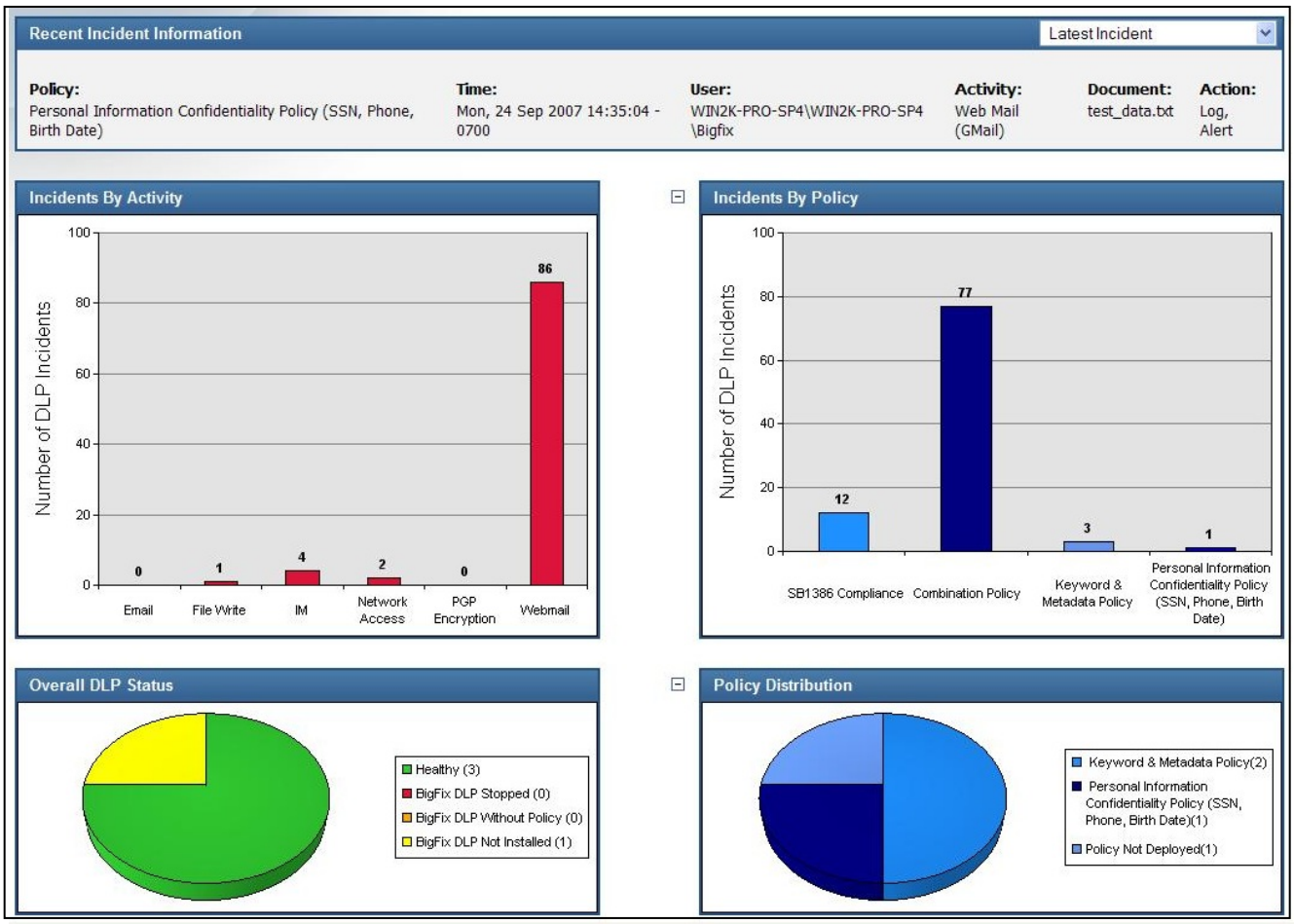
- **Deploy**—Use these links to deploy or uninstall DLP. Each computer with a DLP agent must have exactly one policy. Computers without policies will not report any DLP data.
  - Deploy BigFix DLP
  - Uninstall BigFix DLP
- **Configure**
  - Create DLP Policy—This link brings up the BigFix DLP Policy Creation Wizard.
  - Disable Monitoring Inside Local Network
  - Enable Monitoring Inside Local Network

- **Scan**—Use scans to search for sensitive documents. Sensitive documents are defined by your current DLP policy. Computers must have a set DLP policy in order to run a DLP scan.
  - Run DLP Scan
  - Cancel DLP Scan
  - Pause DLP Scan
  - Resume DLP Scan
- **View Analyses**—Analyses enable you to view configuration information as well as incident and scan data. These analyses are marked if activated.
  - BigFix DLP - Configuration Information
  - BigFix DLP - Scan Statistics
  - BigFix DLP - Incident Statistics
- **Additional Tasks**—These tasks are used for troubleshooting your DLP deployment.
  - Hide DLP Process
  - Show DLP Process
  - Restart BigFix DLP
  - Set Maximum File Size Limit
  - Update Scan Statistics
- **Custom Policies**—In this section are listed any custom policies you have created.

Reading the Dashboard's Overview Statistics and Charts

Below the controls, you see reports on your deployment of BigFix DLP in chart and text format.

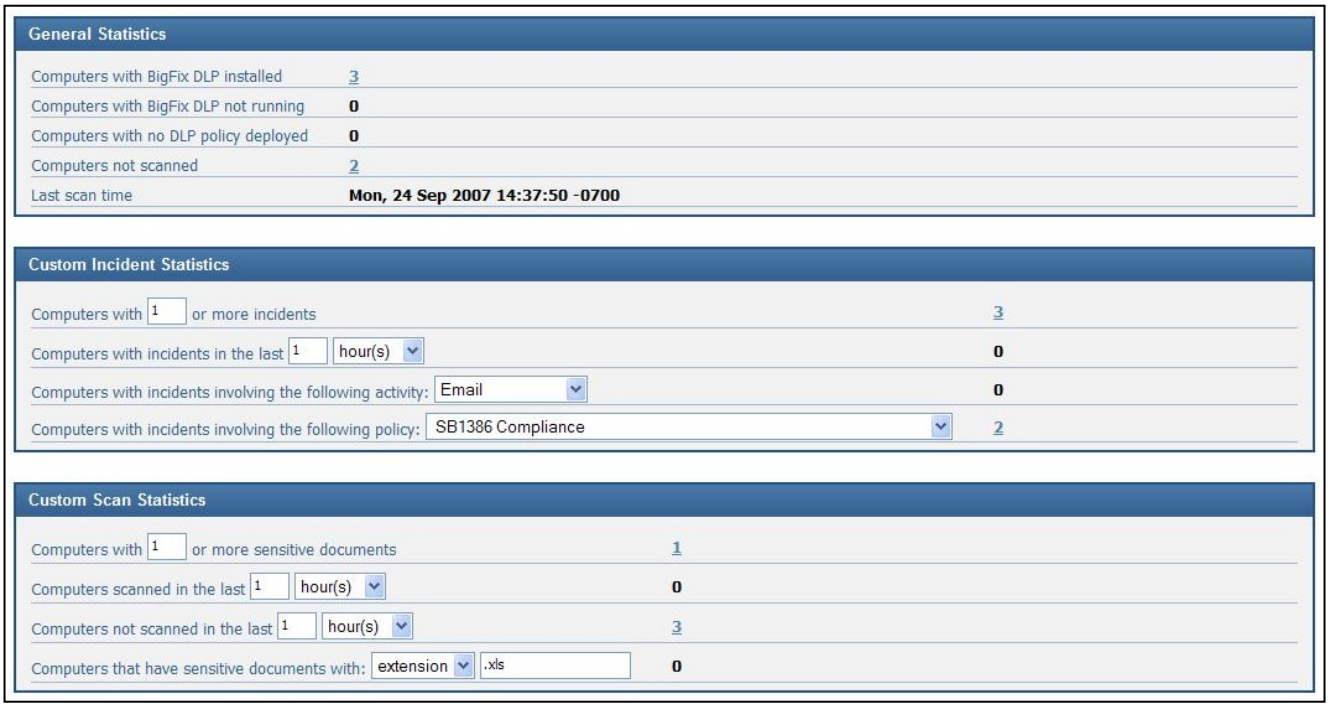
Using the BigFix DLP Dashboard



BigFix DLP provides charts or graphs displaying:

- **Recent Incident Information**
  - Policy
  - Time
  - User
  - Activity
  - Document
  - Action
- **Incidents By Activity**—Bar Chart
- **Incidents By Policy**—Bar Chart
- **Overall DLP Agent Status**—Pie Chart
- **Policy Distribution**—Pie Chart

Using the BigFix DLP Dashboard



The dashboard also provides charts presenting the following statistics:

- **General Statistics**
  - Computers with BigFix DLP installed <*number*>
  - Computers with BigFix DLP not running <*number*>
  - Computers with no DLP policy deployed <*number*>
  - Computers not scanned <*number*>
  - Last Scan Time <*date and time*>
- **Custom Incident Statistics**
  - Computers with <*number*> or more incidents <*number*>
  - Computers with incidents in the last <*hour(s)/day(s)/week(s)*> <*number*>
  - Computers with incidents involving the following activity: <*Email/File Write/IM/Network Access/PGP Encryption/Webmail*> <*number*>
  - Computers with incidents involving the following policy: <*Policy/No Policies/N/A*> <*number*>
- **Custom Scan Statistics**
  - Computers with <*number*> or more sensitive documents
  - Computers scanned in the last <*hour(s)/day(s)/week(s)*>
  - Computers that have sensitive documents with: <*extension/filename*> <*extension or filename*> <*number*>

Working with BigFix DLP

This section provides instructions for performing the most common tasks with BigFix DLP.

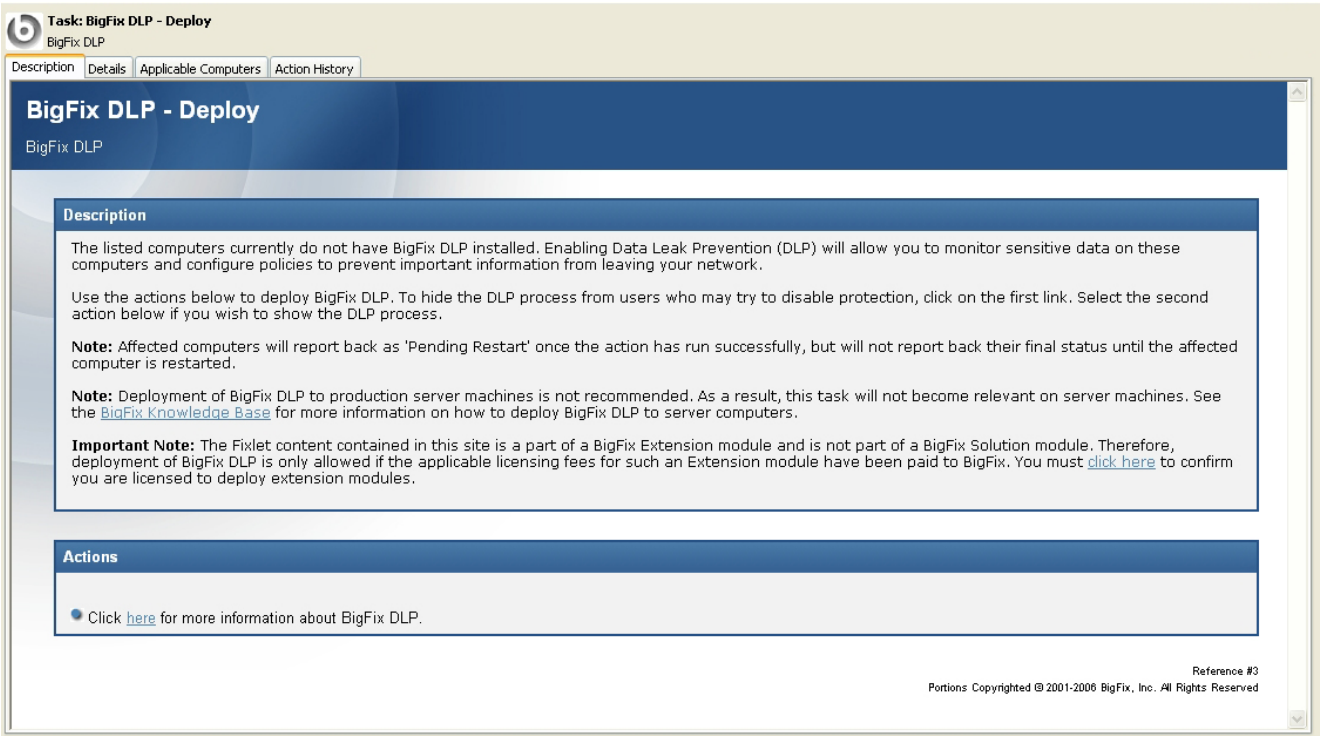
Deploying BigFix DLP

This section contains instructions for deploying BigFix DLP.

To deploy BigFix DLP:

1. From the Dashboard, click the **Deploy BigFix DLP** link.

   The **BigFix DLP - Deploy** Task opens.



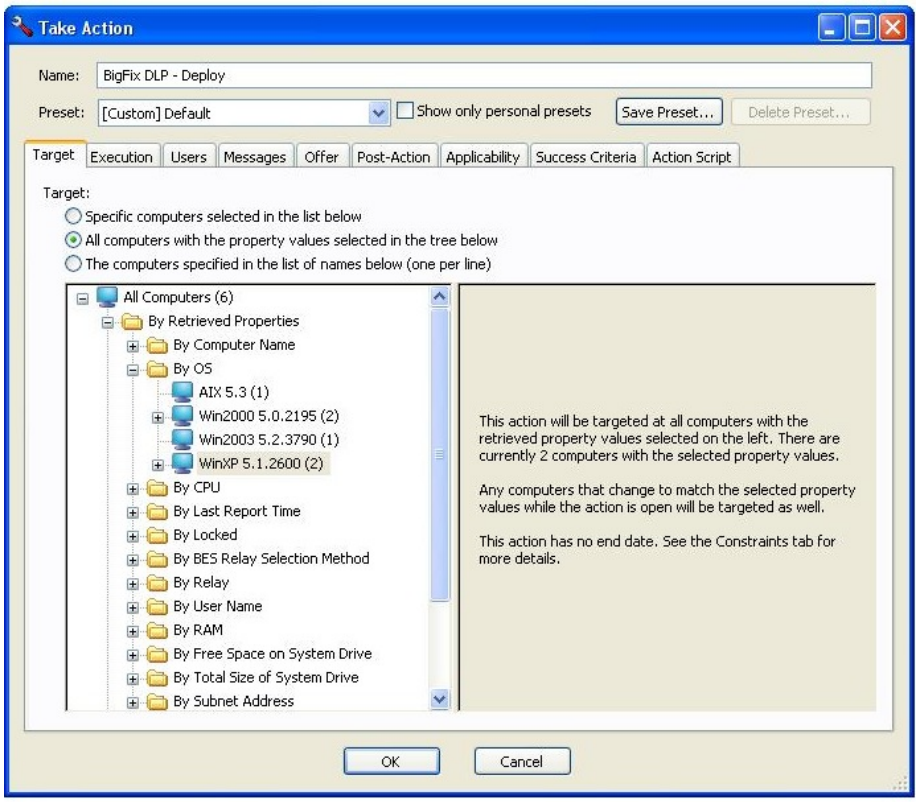
2. Click the **click here** link located in the **Description** section to accept the extension license.

   Additional links will appear in the **Actions** section.

3. Click the appropriate **Action** link depending on whether you want to hide or show the agent.

> **Note**: Choosing to show the agent allows your end-users to view, and potentially modify, the agent on their computers. Generally you would choose this option for testing, troubleshooting, and in other environments in which you want each user to have control over their endpoint security.

The **Take Action** dialog box opens.

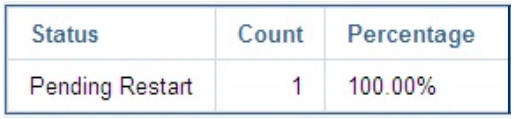


4. In the **Take Action** dialog box:
   a. Select the computer(s) to which you would like to deploy BigFix DLP.
   b. Set any desired options such as for scheduling, messages to users, etc.

      For more information about setting options using the tabs in the Take Action dialog box, consult the *Console Operators Guide*.

   c. Click **OK** when you are finished.
5. Enter your **Private Key Password** to continue.

An Action window will appear, in which you can track the progress of your deployment. When it is finished, the status will show "Pending Restart."



Status	Count	Percentage
Pending Restart	1	100.00%

6. Restart the client computers using the BigFix Console.

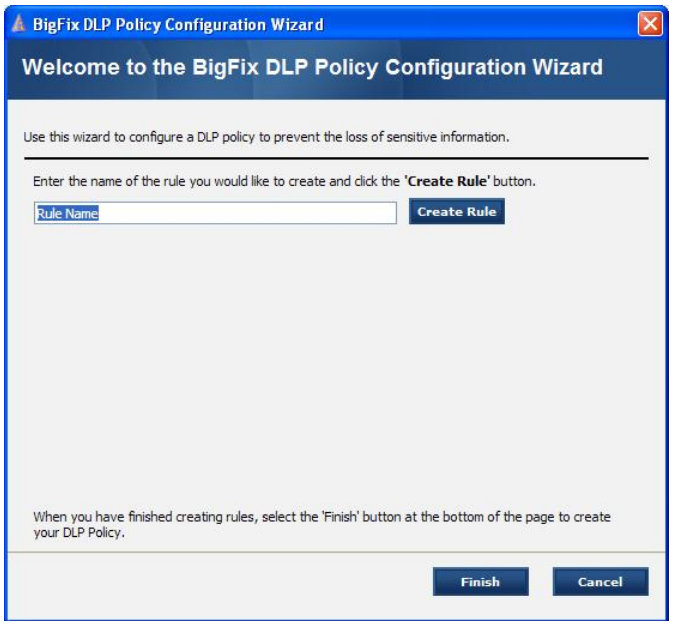
Creating DLP Policies Using the Wizard

This section demonstrates how to set data leak prevention policies using the BigFix DLP Policy Configuration Wizard.

Creating and Deploying Template-Based Policies

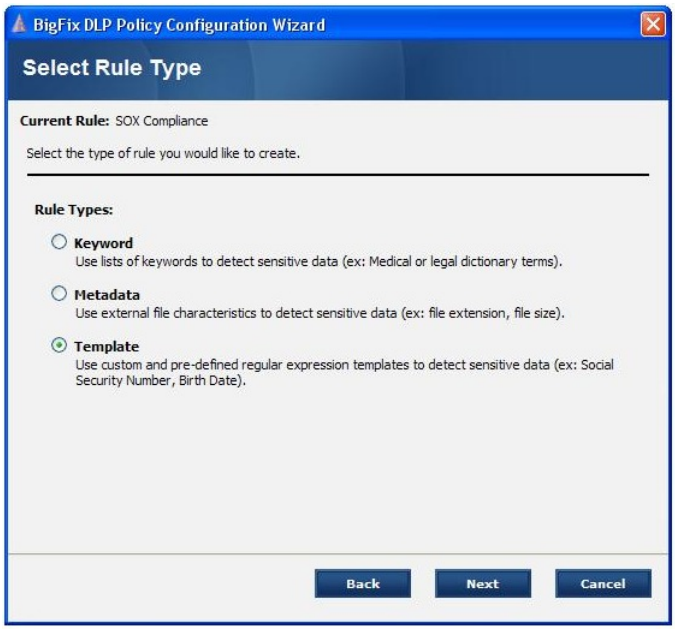
1. From the Dashboard, click the **Create DLP Policy** link.

   The **BigFix DLP Policy Creation Wizard** opens.



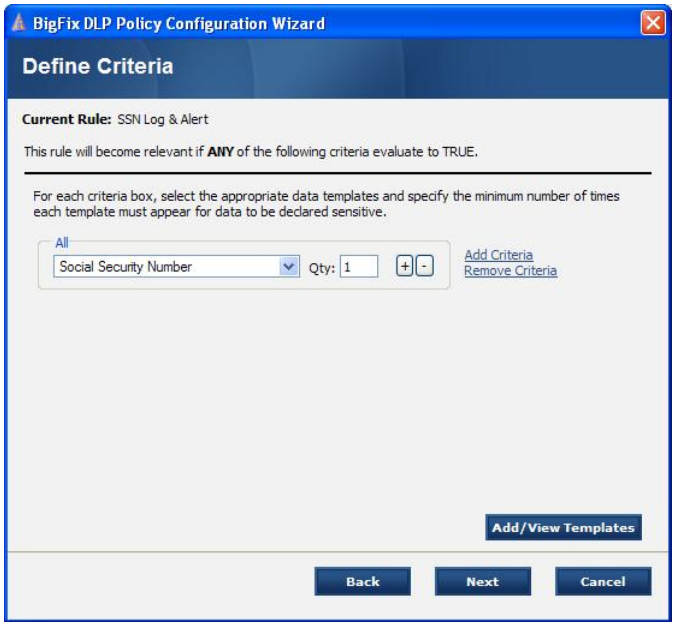
2. Enter a rule name and click the **Create Rule** button.

   The **Select Rule Type** window opens.



3. To create a template-based rule, select the **Template** option and then click the **Next** button.
4. Enter a rule name and click the **Create Rule** button.

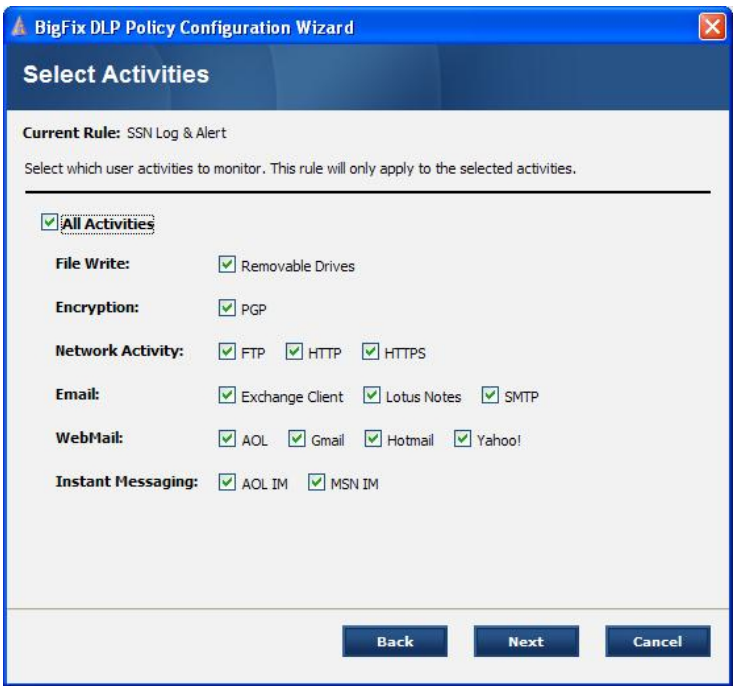
   The **Define Criteria** window opens.



5. To set criteria for your rule:
   a. From the drop-down list, select the data template you wish you set as a criterion.
   b. In the **Qty** box, specify the minimum number of times each template must appear for data to be declared sensitive.
   c. Click **Next**.

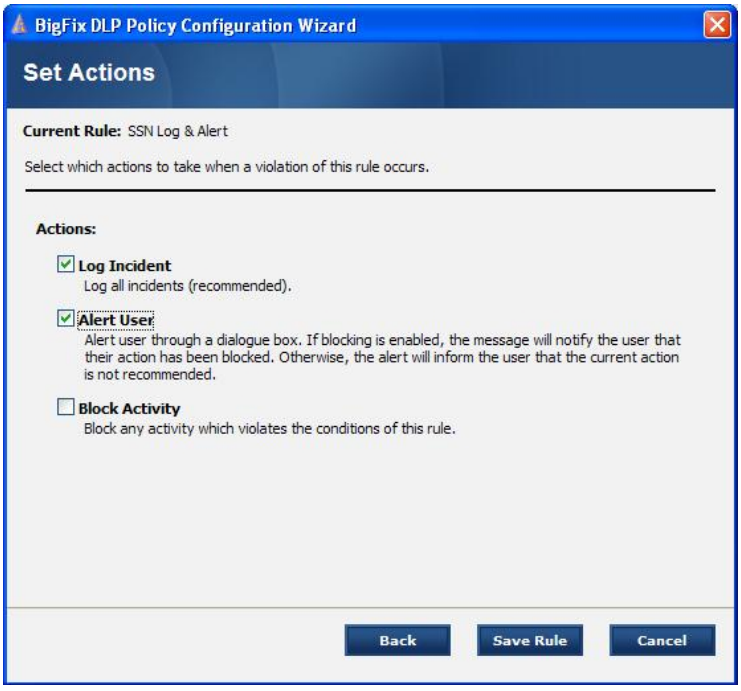
Note: Each criterion must consist of at least one data template and a quantity for that data template. Data templates are used to detect sensitive information such as credit card numbers and social security numbers.

The **Select Activities** window opens.



6. In the **Select Activities** window:
   a. Select the activities you would like to monitor for sensitive data transfer.
   b. Click **Next**.

   The **Set Actions** window opens.

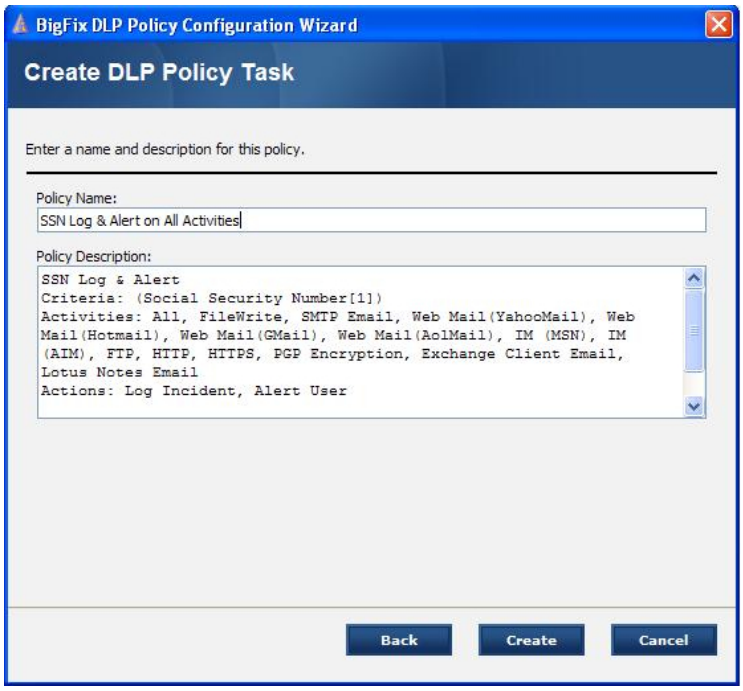


7. Select the actions you would like the DLP agent to take when a violation occurs. Click **Save Rule**.

> **Note**: It is recommended that you log incidents without blocking for a period of time to gauge the effectiveness of your rule.

8. Repeat steps 2–5 until you have completed your policy. Click **Finish**.

   The **Create DLP Policy Task** window opens.



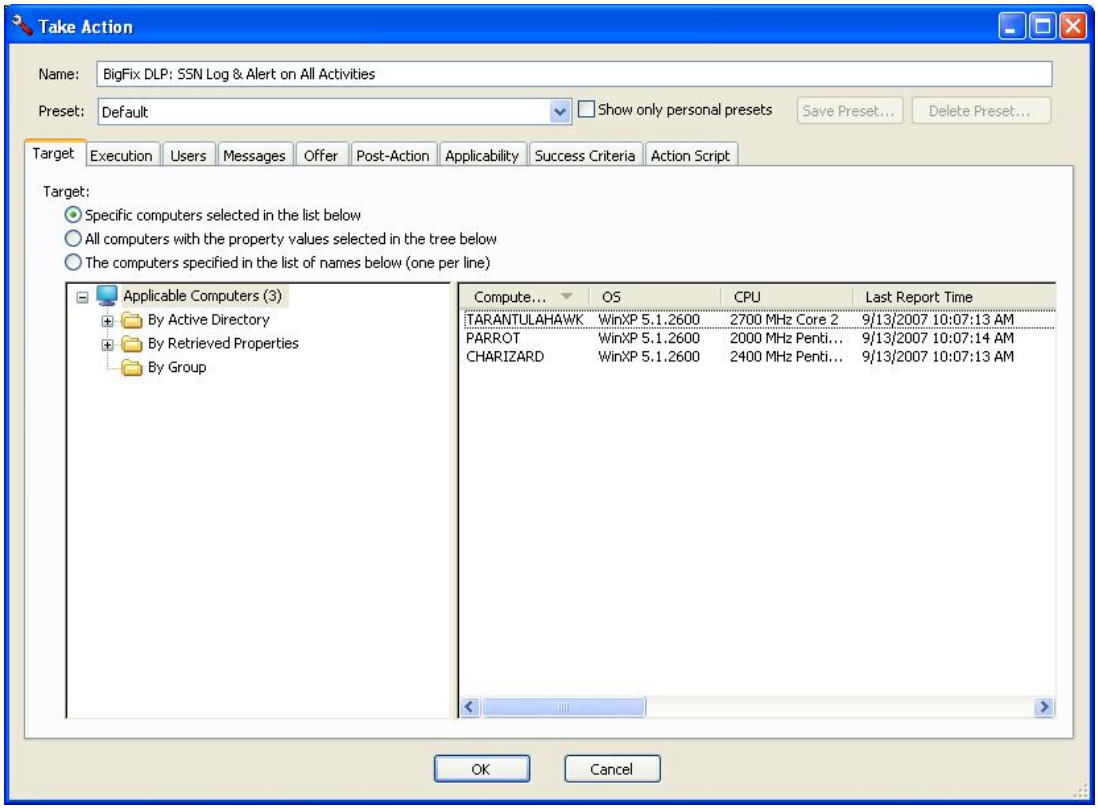
9. To create a custom Task that can be used to deploy your policy, enter a name for your policy and then click **Create**.

10. Enter your **Private Key Password** and click **OK**.

    A **Task** window opens.

11. Click the **here** link to deploy your DLP policy.

The **Take Action** dialog box opens.



12. In the **Take Action** dialog box:
    a. Select the computer(s) to which you would like to deploy your policy.
    b. Set any desired options such as for scheduling, messages to users, etc.

       For more information about setting options using the tabs in the Take Action dialog box, consult the *Console Operators Guide*.

    c. Click **OK** when you are finished.
13. Enter your **Private Key Password** to continue.

    An Action window will appear, in which you can track the progress of the deployment.

Creating and Deploying Policies with Custom Data Templates

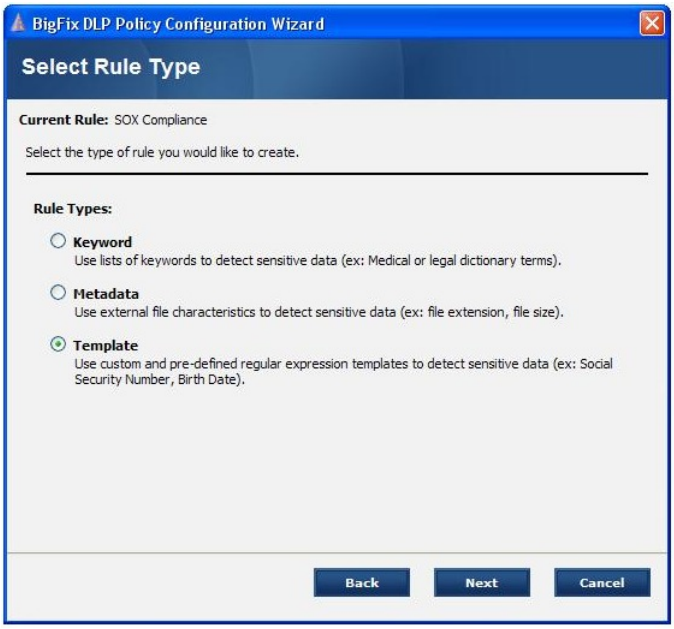
To create a policy that uses a custom data template:

1. From the Dashboard, click the **Create DLP Policy** link.

   The **BigFix DLP Policy Creation Wizard** opens.

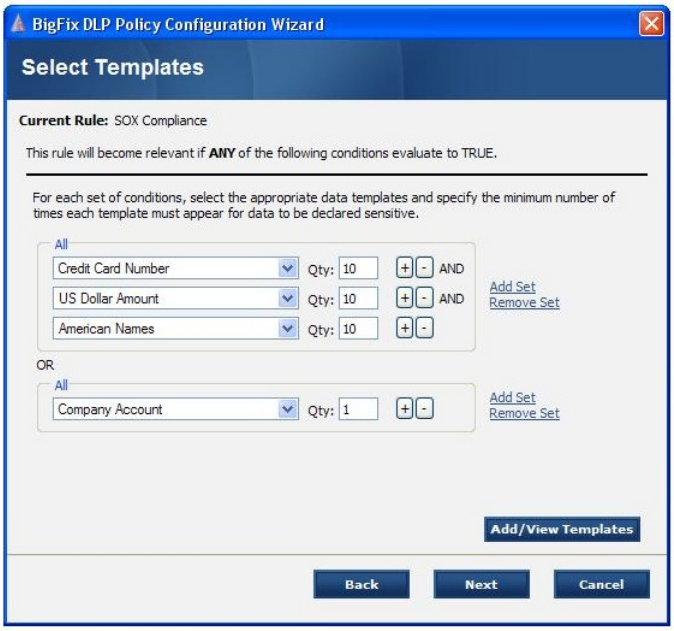
2. Enter a rule name and click the **Create Rule** button.

   The **Select Rule Type** window opens.



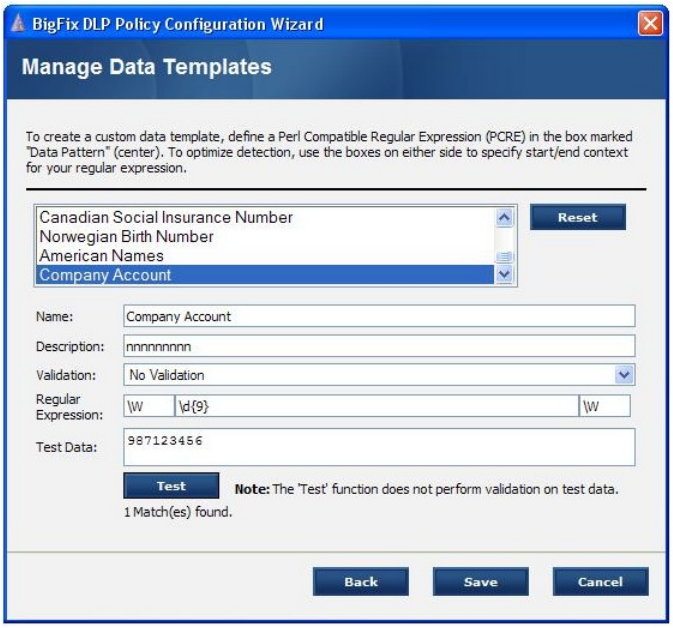
3. Select **Template**, and then click **Next**.

   The **Select Templates** window opens.



4. Click the **Add/View Templates** button.

   The **Manage Data Templates** window opens.



5. In the **Manage Data Templates** window:

   a. Select a criterion from the scroll box.

   b. Name your data template, enter a description, and select a Validation criterion from the drop-down box; or accept the defaults.

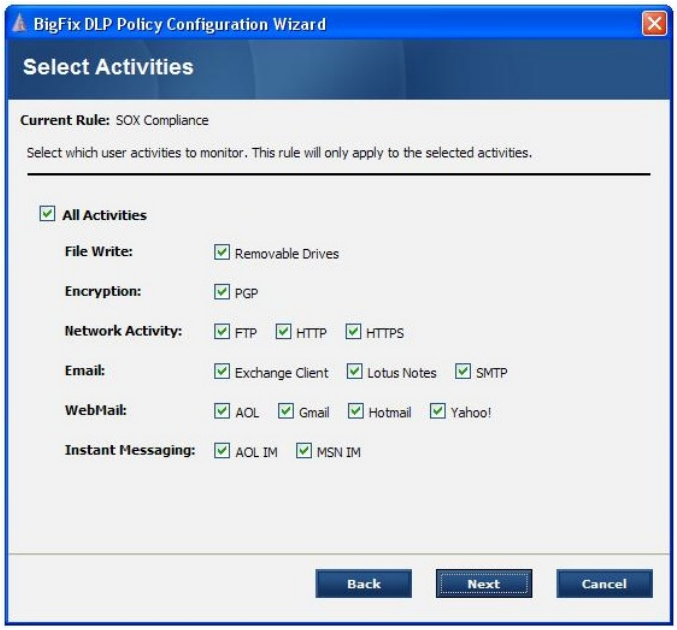
   c. Enter a Perl-Compatible Regular Expression (PCRE) in the **Regular Expression** box.

   d. Enter some test data in and click **Test**.

e. After you are satisfied, click **Save**.

Your custom template will now be available for use in configuring policies.

The **Select Activities** window opens.

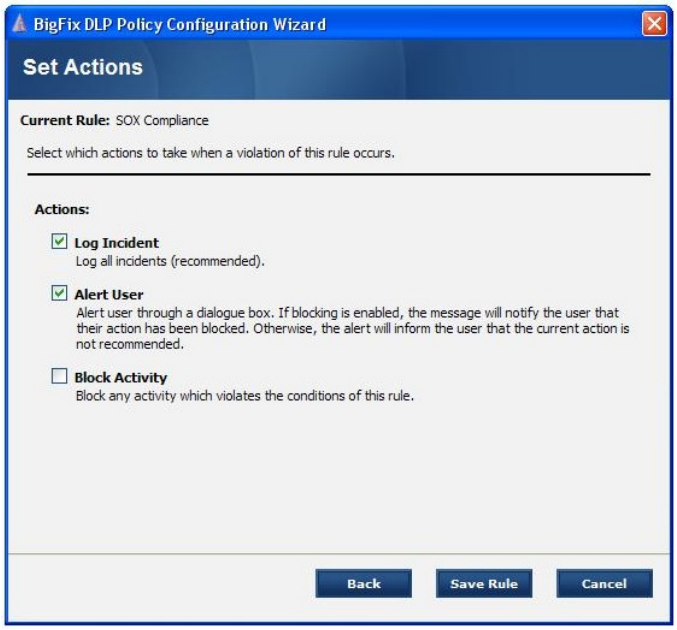


6. In the **Select Activities** window:

   a. Select the activities you would like to monitor for sensitive data transfer.

   b. Click **Next**.

   The **Set Actions** window opens.

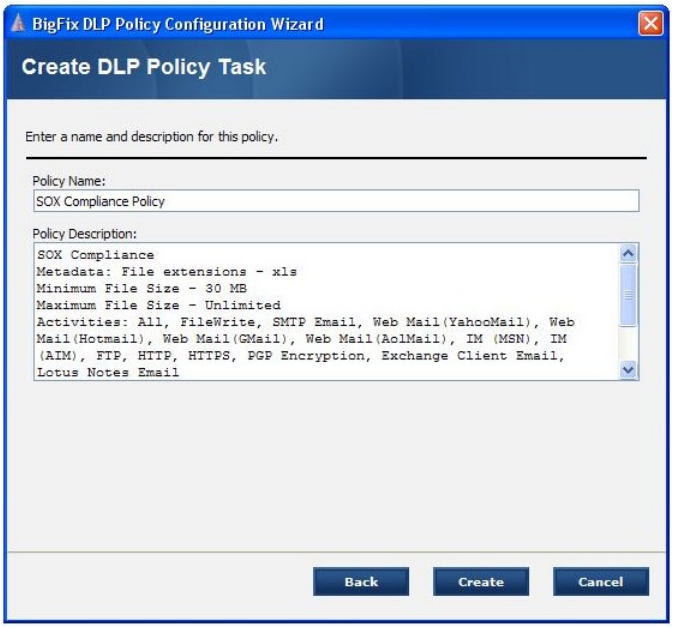


7. Select the actions you would like the DLP agent to take when a violation occurs.

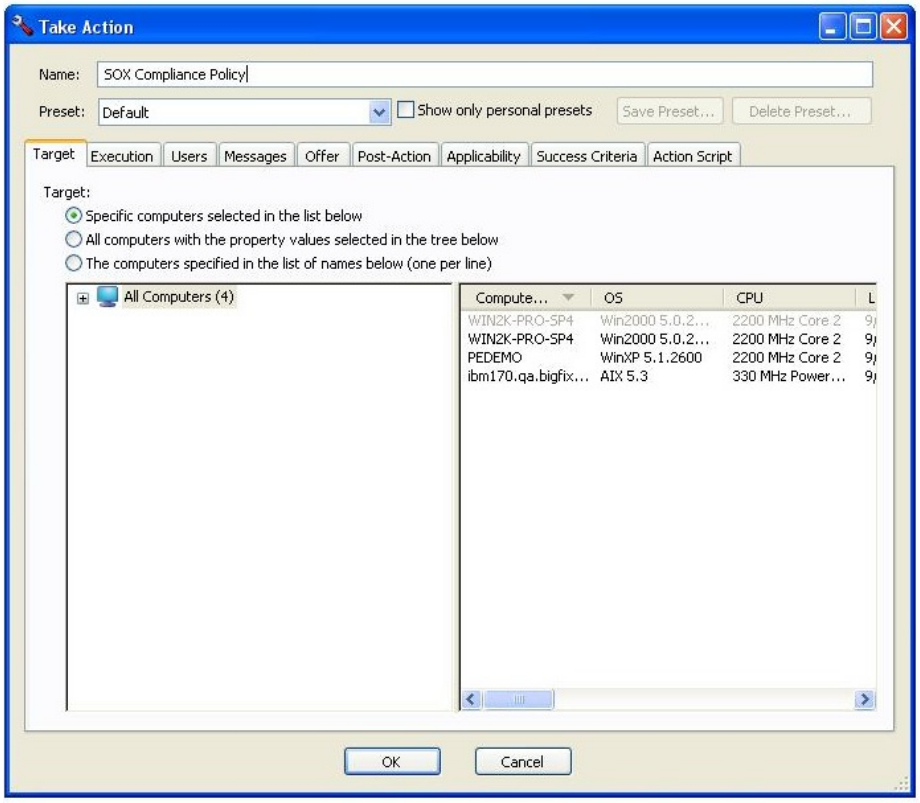
> **Note**: It is recommended that you log incidents without blocking for a period of time to gauge the effectiveness of your rule.

8. Click Save Rule.

   The **Create DLP Policy Task** window opens.



9. To create a custom Task that can be used to deploy your policy, enter a name for your policy and then click **Create**.
10. Enter your **Private Key Password** and click **OK**. A **Task** window opens.
11. Click the **here** link to deploy your DLP policy. A **Take Action** dialog box opens.



12. In the **Take Action** window:
    a. Select the computer(s) to which you would like to deploy your policy.
    b. Set any desired options such as for scheduling, messages to users, etc.

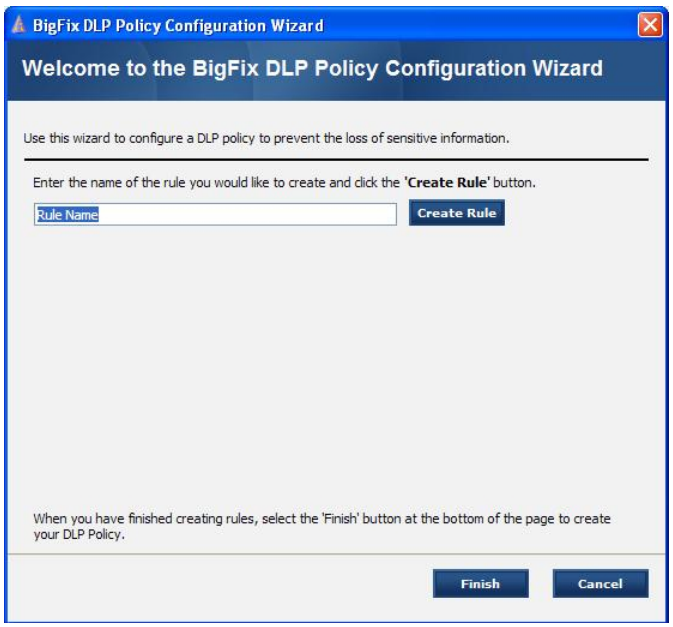
       For more information about setting options using the tabs in the Take Action dialog box, consult the *Console Operators Guide*.
    c. Click **OK** when you are finished.
13. Enter your **Private Key Password** to continue.

    An Action window will appear, in which you can track the progress.

Creating and Deploying Keyword-Based Policies

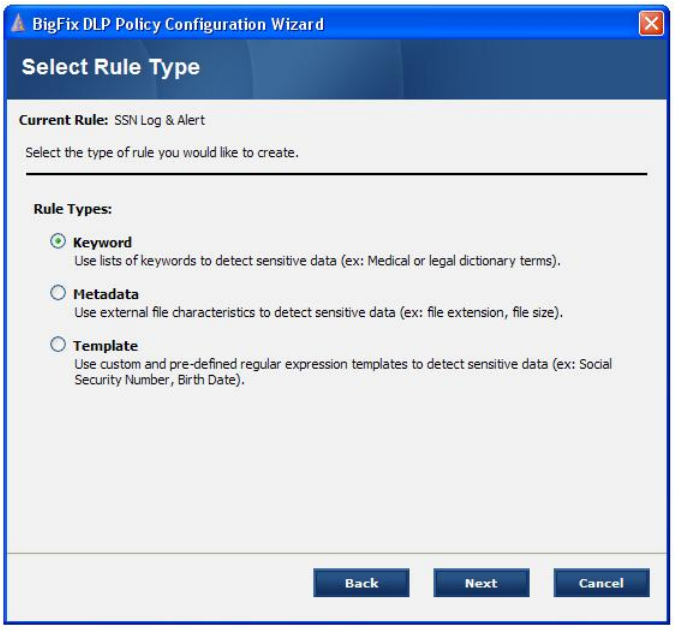
1. From the Dashboard, click the **Create DLP Policy** link.

   The **BigFix DLP Policy Creation Wizard** opens.



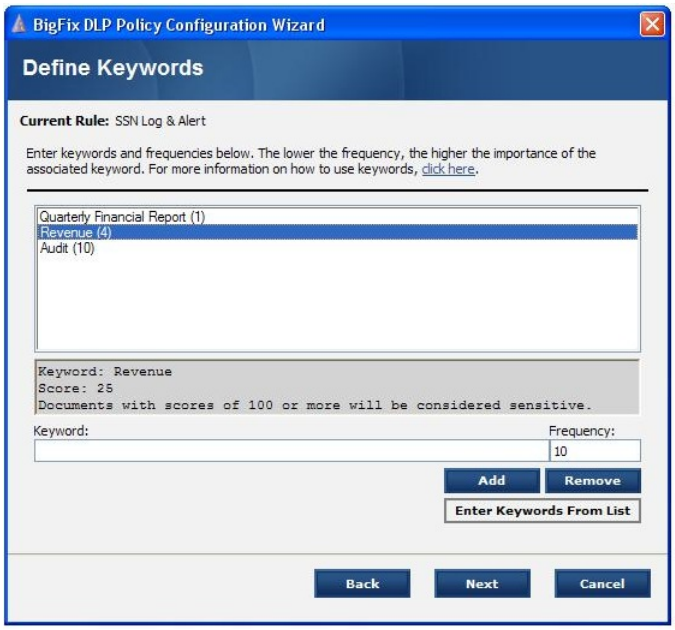
2. Enter a rule name and click the **Create Rule** button.

   The **Select Rule Type** window opens.



3. To create a keyword-based rule, select the **Keyword** option and then click the **Next** button.

   The **Define Keywords** window opens.



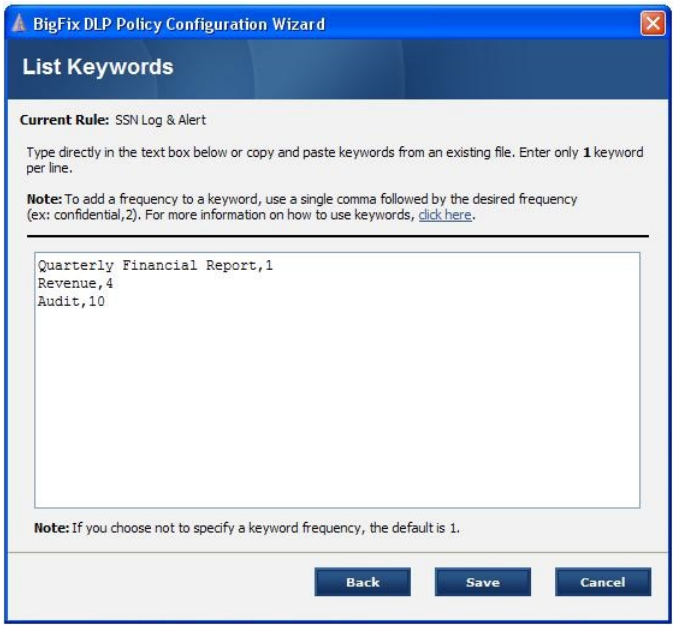
4. To define keywords for your rule:
   a. Type the keyword in the text box labeled Keyword.
   b. If desired, specify a frequency for the keyword.
   c. Click the Add button to add the keyword to the keyword list.

      Scoring information for the keyword will appear in the grey box below the keyword list.

> **Note**: Any document with a total score of 100 or more will be considered sensitive. For example, keyword A has a frequency of 2 and a score of 50. This means that a document must contain at least 2 instances of keyword A to be considered sensitive. Keyword B has a frequency of 4 and a score of 25. This means that a document must contain at least 4 instances of keyword B to be considered sensitive. A document containing 1 instance of keyword A and 2 instances of keyword B will also be considered sensitive.

5. To add keywords from an existing list click the **Enter Keywords From List** button.

   The **List Keywords** window opens.



6. In the **List Keywords** window:

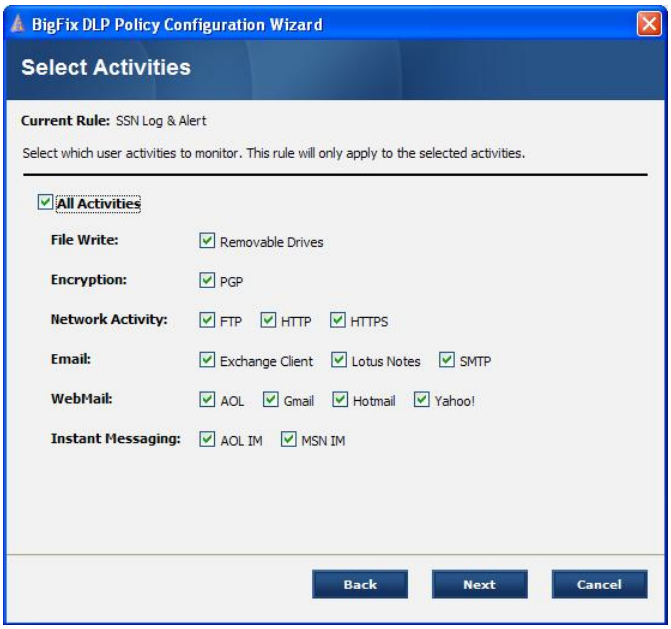
   a. Copy and paste keywords into the text area box, optionally using a single comma to separate a keyword from its frequency.

      If you choose not to specify a frequency for each keyword, the default frequency will be 1.

   b. Click the Save button when you are finished.

   c. When you are finished entering keywords, click the **Next** button.

   The **Select Activities** window opens.



7. In the **Select Activities** window:

   a. Select the activities you would like to monitor for sensitive data transfer.

b. Click **Next**.

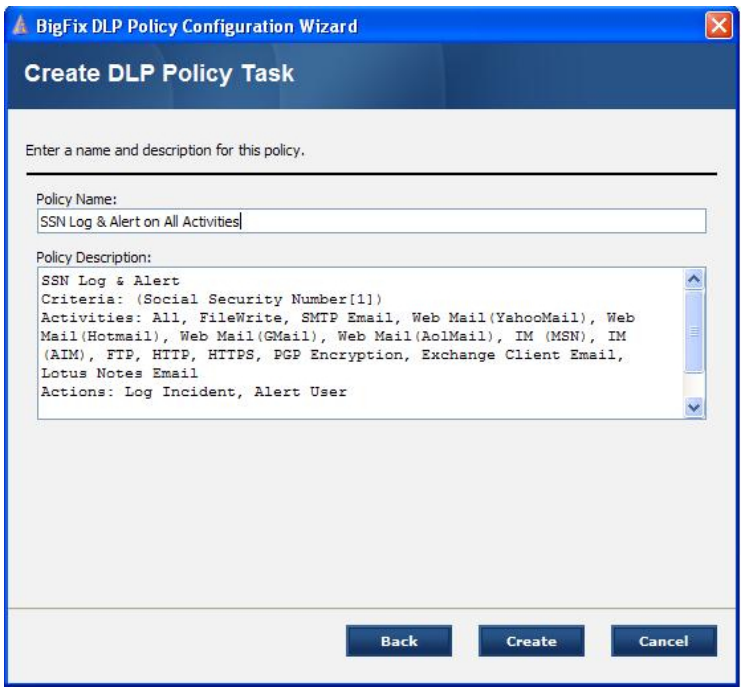
The **Set Actions** window opens.

8. Select the actions you would like the DLP agent to take when a violation occurs. Click **Save Rule**.

> **Note**: It is recommended that you log incidents without blocking for a period of time to gauge the effectiveness of your rule.

9. Repeat the previous steps until you have completed your policy. Click **Finish**.

   The **Create DLP Policy Task** window opens.



10. To create a custom Task that can be used to deploy your policy, enter a name for your policy and then click **Create**.
11. Enter your **Private Key Password** and click **OK**.

    A **Task** window opens.
12. Click the **here** link to deploy your DLP policy. The **Take Action** dialog box opens.
13. In the **Take Action** dialog box:
    a. Select the computer(s) to which you would like to deploy your policy.
    b. Set any desired options such as for scheduling, messages to users, etc.

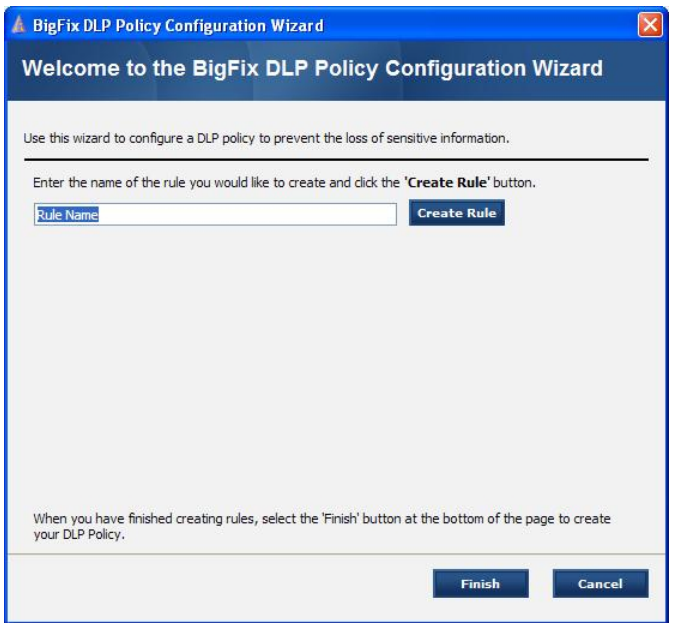
       For more information about setting options using the tabs in the Take Action dialog box, consult the *Console Operators Guide*.
    c. Click **OK** when you are finished.
14. Enter your **Private Key Password** to continue.

    An Action window will appear, in which you can track the progress.

Creating and Deploying Metadata-Based Policies

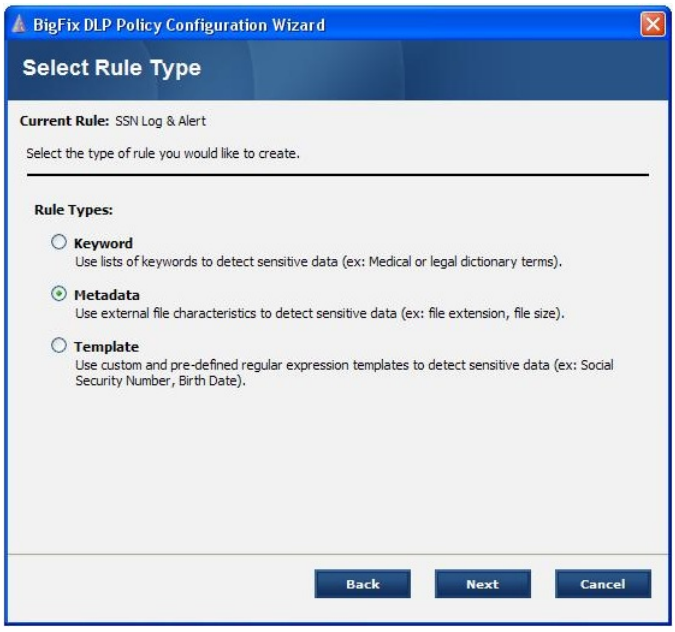
1. From the Dashboard, click the **Create DLP Policy** link.

   The **BigFix DLP Policy Creation Wizard** opens.



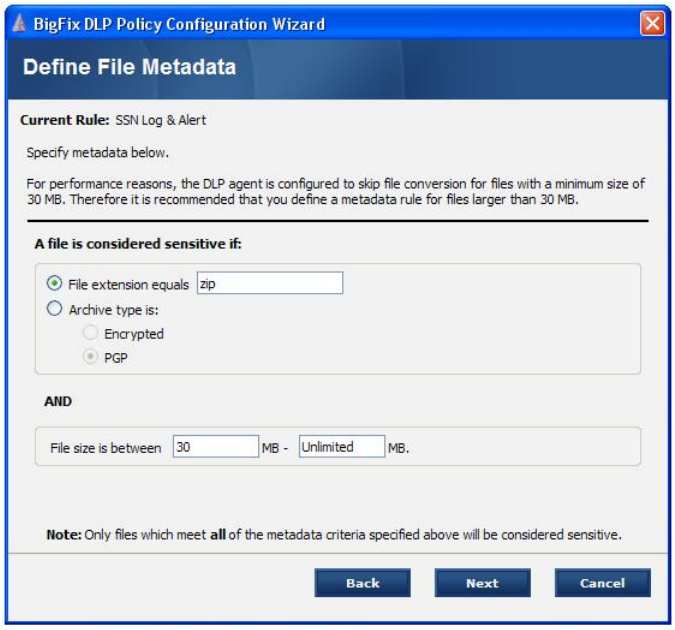
2. Enter a rule name and click the **Create Rule** button.

   The **Select Rule Type** window opens.



3. To create a metadata-based rule, select the **Metadata** option and then click the **Next** button.

   The **Define File Metadata** window opens.



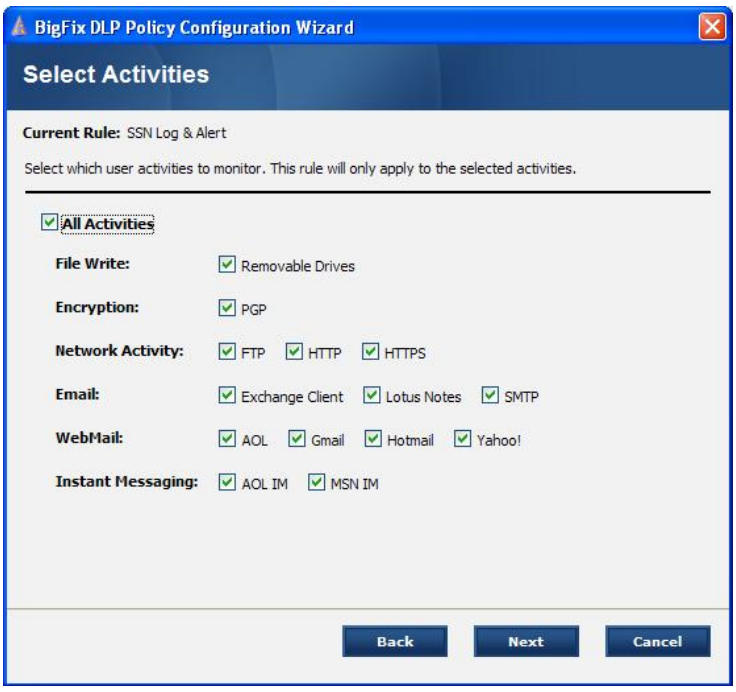
4. In the **Define File Metadata** window:
   a. Enter a file extension without the leading period or select an archive type.
   b. Select the Encrypted option if you would like to monitor documents such as encrypted .zip or .rar files.
   c. Select the PGP option if you would like to monitor PGP encrypted documents.
   d. Enter a minimum and maximum file size.

      To specify an unlimited maximum file size, type Unlimited in the maximum file size box.

      Note: For performance reasons, the DLP process is configured to skip file conversion of files larger than 30 MB. Therefore it is recommended that you define at least one file metadata rule for files larger than 30 MB.

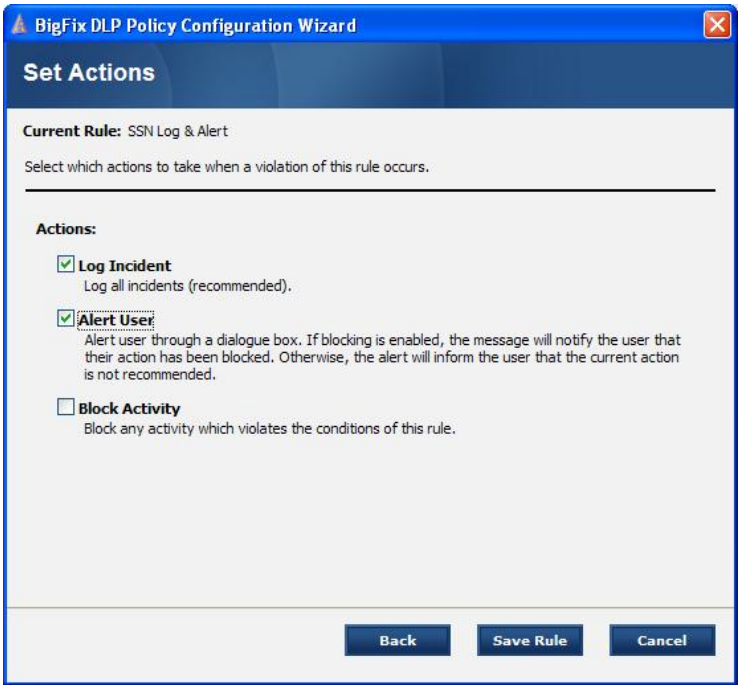
   e. When you are finished selecting file metadata, click the **Next** button.

   The **Select Activities** window opens.



5. In the **Select Activities** window:
   a. Select the activities you would like to monitor for sensitive data transfer.
   b. Click **Next**.

   The **Set Actions** window opens.

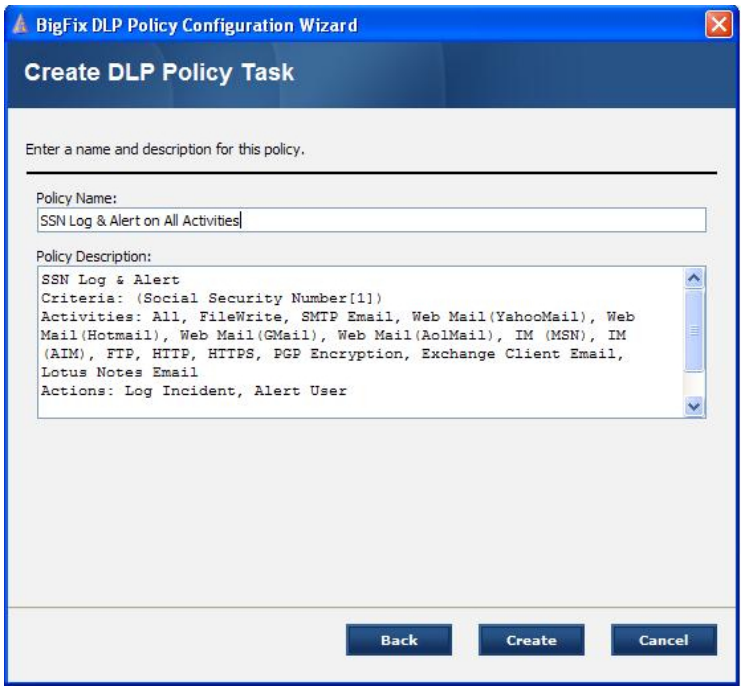


6. Select the actions you would like the DLP agent to take when a violation occurs. Click **Save Rule**.

> **Note**: It is recommended that you log incidents without blocking for a period of time to gauge the effectiveness of your rule.

7. Repeat the previous steps until you have completed your policy. Click **Finish**.

   The **Create DLP Policy Task** window opens.



8. To create a custom Task that can be used to deploy your policy, enter a name for your policy and then click **Create**.
9. Enter your **Private Key Password** and click **OK**. A **Task** window opens.
10. Click the **here** link to deploy your DLP policy. The **Take Action** dialog box opens.
11. In the **Take Action** dialog box:
    a. Select the computer(s) to which you would like to deploy your policy.
    b. Set any desired options such as for scheduling, messages to users, etc.
    c. For more information about setting options using the tabs in the Take Action dialog box, consult the *Console Operators Guide*.
    d. Click **OK** when you are finished.
12. Enter your **Private Key Password** to continue.

    An Action window will appear, in which you can track the progress.

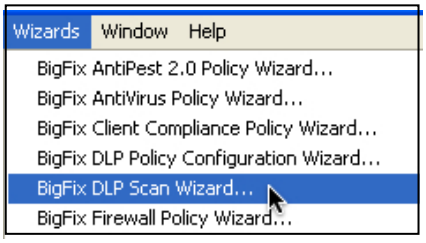
Running Scans

Scanning searches for sensitive files on computers that have the DLP agent installed. Sensitive files are defined by the currently deployed DLP policy. As a result, this task will not be relevant on computers that do not have a set DLP policy.

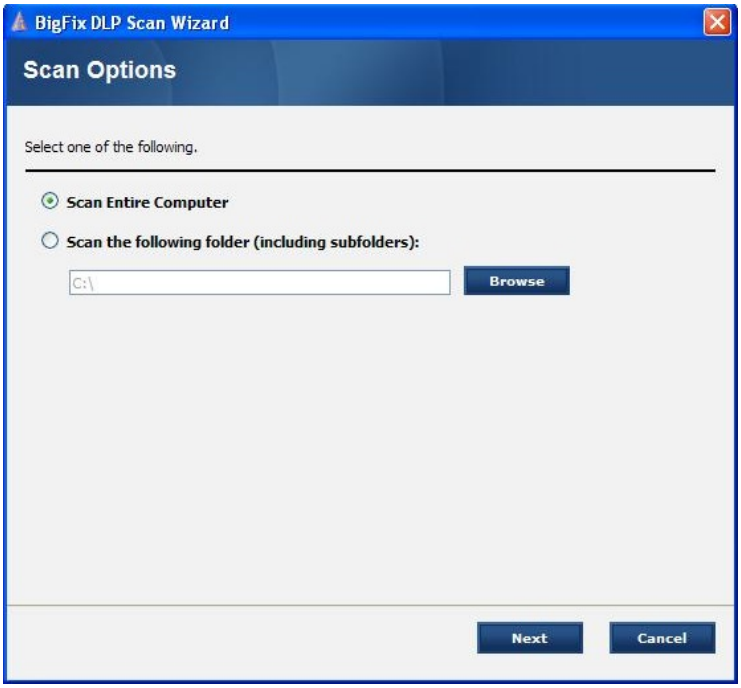
Scanning is resource-intensive and will affect computer performance. In particular, full computer scans can take several hours and should be performed only when there is no user present. The task will return as "Completed" in the BES Console. However, the DLP scan will continue to run on targeted computers. To view the status of this scan please see the "Current Scan Status" property in the DLP Dashboard report.

To run a scan:

1. Choose **Wizards > BigFix DLP Scan Wizard…**.



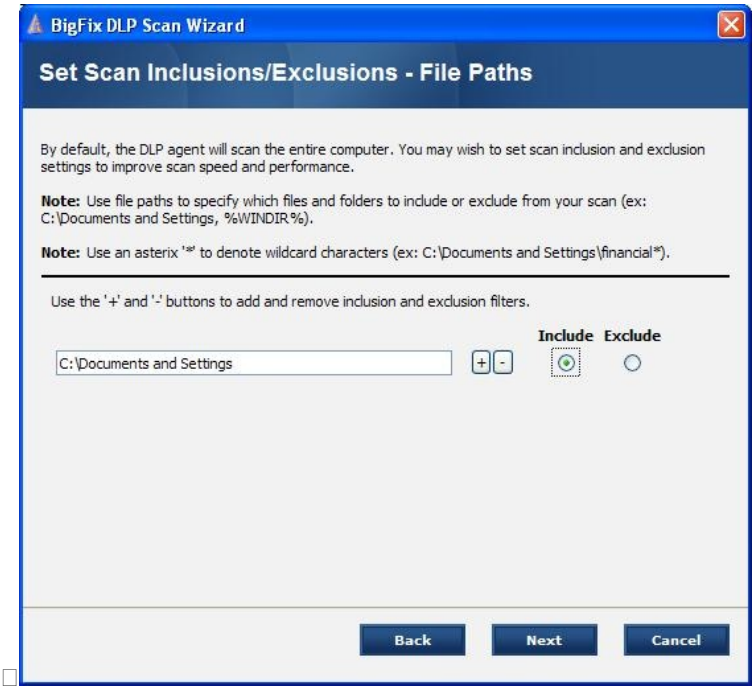
   The **Scan Options** window opens.



2. Choose whether you want to scan an entire computer or a particular subfolder. Click **Next**.

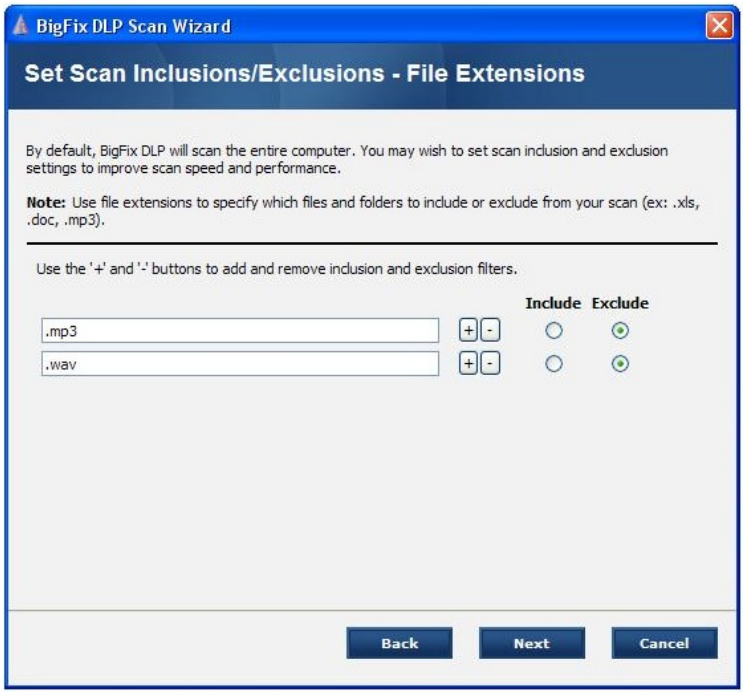
   The **Set Scan Inclusions/Exclusions – File Paths** window opens.

Running Scans



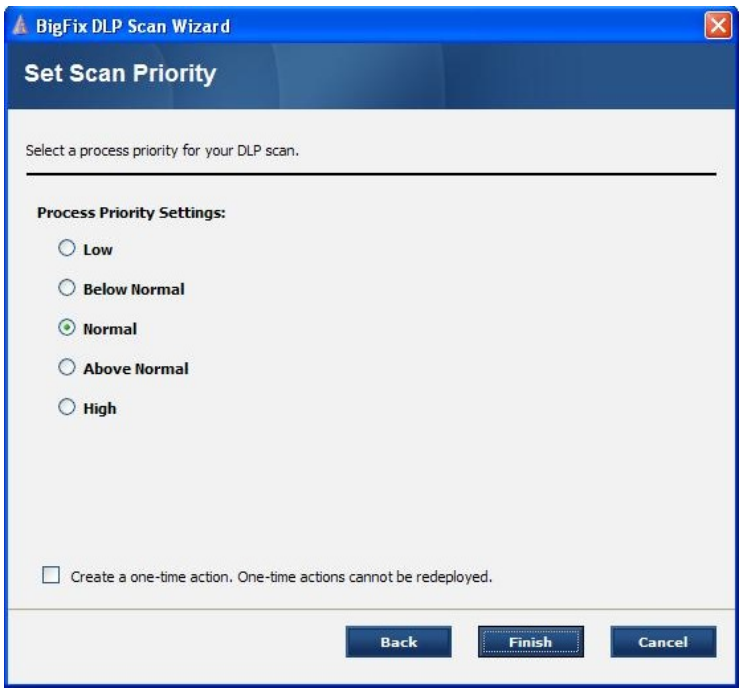
3. Add any filters you want to mark for inclusion or exclusion. Click **Next**.

   The **Set Scan Inclusions/Exclusions – File Extensions** window opens.



4. Add filters for inclusion and/or exclusion. Click **Next**.

   The **Set Scan Priority** window opens.



5. In the **Set Scan Priority** window:
   a. Set the process priority for the DLP scan.
   b. Leave the last check box unchecked to create a reusable Task, or check the box to create a one-time Action.
   c. Click **Finish**.
6. Enter your **Private Key Password** and click **OK**. A **Task** window opens.
7. Click the **here** link to deploy your DLP policy. A **Take Action** dialog box opens.
8. In the **Take Action** dialog box:
   a. Select the computer(s) to which you would like to deploy your policy.
   b. Set any desired options such as for scheduling, messages to users, etc.

      For more information about setting options using the tabs in the Take Action dialog box, consult the *Console Operators Guide*.
   c. Click **OK** when you are finished.
9. Enter your **Private Key Password** to continue.

   An Action window will appear, in which you can track the progress.

Frequently Asked Questions

What platforms does BigFix DLP support?

BigFix DLP supports Microsoft Windows 2000, XP, and Server 2003. Vista support is coming soon. BigFix recommends running the DLP client on computers with at least 1 Gb of memory.

Does BigFix DLP use document tagging to keep track of sensitive information?

No. Our DLP solution does not alter documents in any way and it does not need to track files across computers. We use sophisticated techniques to analyze the contents of a file to determine whether that file contains sensitive information.

Does BigFix DLP require a network appliance?

No. BigFix DLP resides on the endpoints, thereby protecting the main source of data leakage in a company. Note that BigFix DLP will integrate with many industry leading DLP solutions.

Why is the "BigFix DLP: Run Scan" task not relevant?

In order to run a scan, you must first create and deploy a policy using the BigFix DLP Policy Configuration Wizard.

Do I need to run a scan first in order to start monitoring sensitive data transfers?

No. To enable real-time monitoring of sensitive data, all you need to do is install BigFix DLP and create and deploy a policy.

What is the performance impact of the real-time BigFix DLP technology?

The BigFix DLP technology works much like AntiVirus technology (BigFix DLP monitors outbound file and network activities rather than monitoring inbound files like AntiVirus) and has similar performance characteristics. BigFix DLP will remain idle until information leaves the computer and then the data is checked for sensitive information. The amount of time spent checking most files are measured in fractions of seconds and the user experience is not expected to change.

Will BigFix DLP run on server class computers?

Yes. However, it is recommended that you do extensive testing to ensure that the real-time BigFix DLP agent does not affect your server processes (especially servers that send lots of information over the network). In order to prevent accidental deployment of BigFix DLP to server class computers without testing, the default BigFix DLP installation Task is not relevant on servers.

Can BigFix DLP violation events be correlated with other event systems for correlation and long time storage?

Yes. The BigFix DLP solution fully supports integration with SIM, SIEM, or log parsing systems. BigFix DLP events can either by pulled directly from the BigFix Server or the Agents can upload their event logs directly to the event correlation system for import.

How long does it take the agent to send up information about violations and what happens if the agent is disconnected from the network?

The interval that the agent uses to send violation information to the server is configurable, but the default is set to 15-minute intervals. If the agent is not connected to the network, it will send up the violations when it is next connected to the network.

Frequently Asked Questions

Can the user disable BigFix DLP?

When you deploy BigFix DLP, you have the option to hide BigFix DLP process and files, preventing users from easily seeing or disabling BigFix DLP. You can hide/show BigFix DLP with Tasks on the BigFix DLP Fixlet site. If BigFix DLP is hidden, only administrators on the computer can stop or disable the service.

About BigFix, Inc.

Founded in 1997, BigFix® Inc. offers the only converged IT security and operations platform that enables real-time visibility and control of globally distributed desktop, mobile and server computers. BigFix enables large-scale enterprises to continuously enforce IT security, IT policy compliance, and systems management on all computers, anytime, anywhere. Designed for highly distributed and complex IT infrastructures, BigFix delivers real-time endpoint visibility and control through its single-agent, multi-function, on-demand architecture. Its award-winning technology is proven in production at more than 600 companies, government agencies, and public sector institutions worldwide, and currently manages over 7,000,000 desktop and mobile clients, workstations, and servers. More information can be found at www.bigfix.com.

BigFix, Inc.
1480 64th Street Suite 200
Emeryville, California 94608
[t] 510 652-6700
[f] 510 652-6742
[e] info@bigfix.com
[e] sales@bigfix.com