

**BigFix
Patch for Debian User's Guide**



Special notice

Before using this information and the product it supports, read the information in [Notices \(on page 13\)](#).

Edition notice

This edition applies to version 9.5 of BigFix and to all subsequent releases and modifications until otherwise indicated in new editions.

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Chapter 1. Overview

BigFix Patch for Debian provides unified, real-time visibility, and enforcement to deploy and manage patches to all Debian endpoints from a single console. It keeps your Debian clients current with the latest packages.


With a few keystrokes, the BigFix console operator can apply the patch to all the relevant computers and visualize its progress as it deploys throughout the network. The BigFix client checks the operating system version, processors, and the existing installed packages to determine when and if a patch is necessary.

For new supported security updates that become available, BigFix releases a Fixlet that identifies and updates all the computers in your enterprise that need it. These Fixlets are available from the **Patches for Debian 7** site.

Using Fixlets, you can manage large numbers of updates and patches with comparative ease, enabling automated, highly targeted deployment on any schedule that you want. Large downloads can be phased to optimize network bandwidth and the entire deployment process can be monitored, graphed, and recorded for inventory or audit control.

Supported platforms and updates

BigFix supports Debian security updates on Debian 7 platforms (i386 and amd64).

 **Note:** The current available patch content is for BigFix version 9.2 only.

Site subscription

Sites are collections of Fixlet messages that are created internally by you, by HCL, or by vendors.

Subscribe to the Patches for Debian 7 site to access the Fixlet messages to patch systems in your deployment.

You can add a site subscription by acquiring a Masthead file from a vendor or from HCL or by using the Licensing Overview Dashboard. For more information about subscribing to Fixlet sites, see the BigFix Installation Guide. For more information about sites, see the BigFix Console Operator's Guide.

After gathering the available sites, you must run the following tasks, depending on what is applicable to your deployment.

Task ID: 1 Set up Download Whitelist for Debian

This task is applicable to Windows servers.

Task ID: 2 Set up Download Whitelist for Ubuntu (Linux Server)

This task is applicable to Linux servers.

You must run the task because otherwise you might encounter the following error: The requested URL does not pass this deployment's download whitelist.

Debian uses dynamic download while fetching the packages. As a security measure, the server blocks every dynamic download request except those with URLs that match the patterns in the whitelist file. Ensure that both the endpoints and the BigFix relay are subscribed.

Chapter 2. Using BigFix Patch for Debian

Debian security update announcements are available through email lists, RSS feeds, and the official Debian website. BigFix provides Fixlet content through the **Patches for Debian 7** site to help you manage the Debian security updates from the console.

Patching Using Fixlets

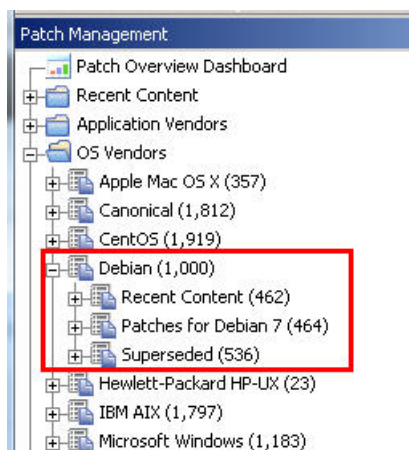
You can apply Debian packages to your deployment by using the Fixlets on the **Patches for Debian 7** site.

Set up the download whitelist. You can use the available tasks depending on your deployment. For more information, see [Site subscription \(on page 1\)](#).

When a new security bug is detected in packages, developers who maintain Debian and upstream authors would generally patch the bugs within days or even hours. When a bug is fixed, a new package is provided on <http://security.debian.org>.

1. From the Patch Management domain, click **OS Vendors > Debian**, and navigate to the patch content using the domain nodes.

Figure 1. Patch Management navigation tree



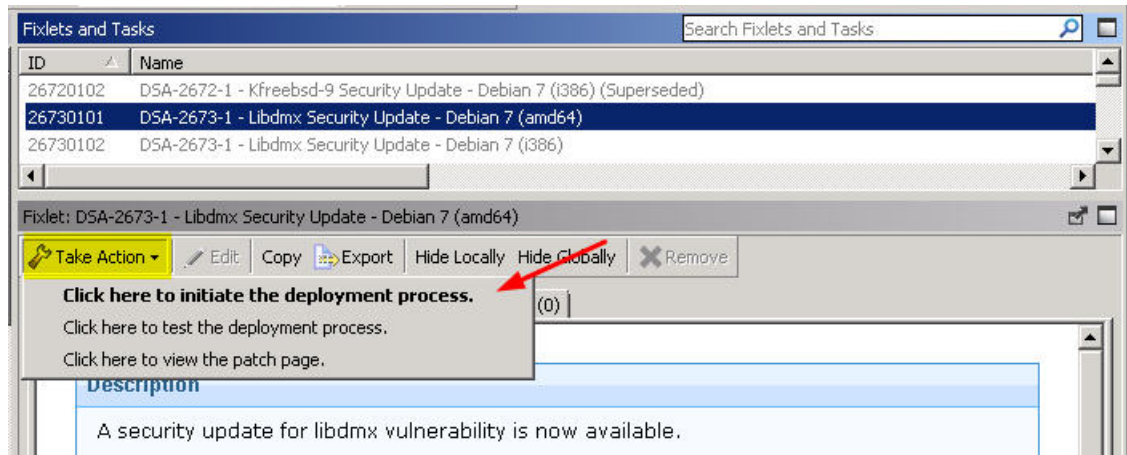
2. In the content that is displayed in the list panel, select the Fixlet that you want to deploy.
The Fixlet opens in the work area.

3. Click the tabs at the top of the window to review details about the Fixlet.

4. Click **Take Action** to deploy the Fixlet.

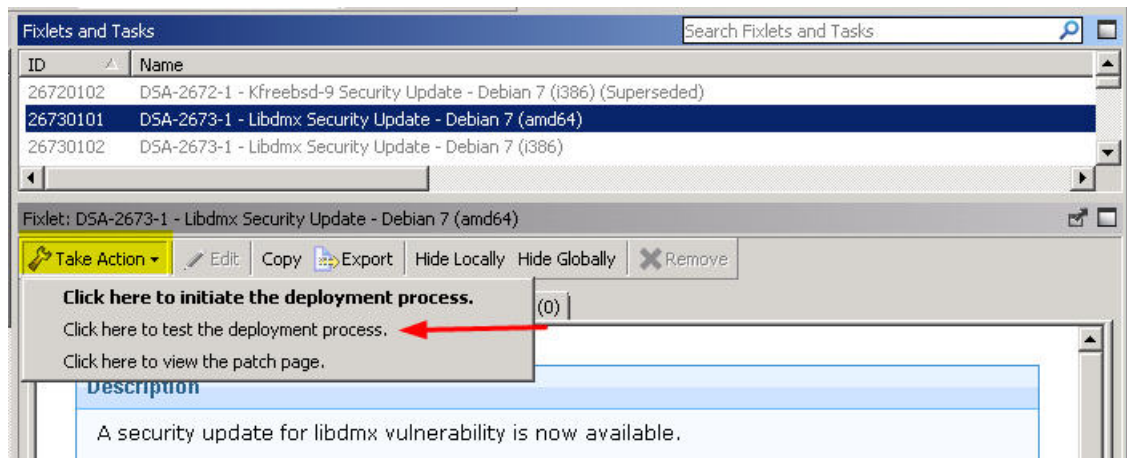
- You can start the deployment process.

Figure 2. Take action to start the deployment process



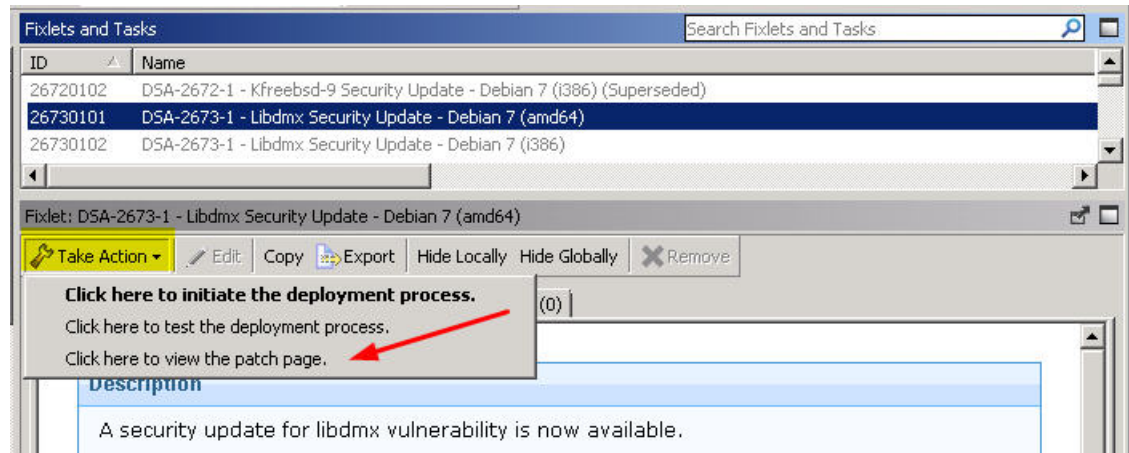
- You can deploy a test run prior to applying the patch. View the **Deployment Results** analysis to determine if the dependencies have been successfully resolved and if an installation is successful.

Figure 3. Take action to deploy a test



- You can view the bulletin for a particular Fixlet. Select the **Click here to view the patch page** action to view the patch page.

Figure 4. Take action to view patch page



Alternatively you can click the appropriate link in the Actions box.

5. You can set more parameters in the Take Action dialog. For detailed information about setting parameters with the Take Action dialog, see the *BigFix Console Operator's Guide*.
6. Click **OK**.

Supersedence

Please refer to Supersedence in Patch to know more about the supersedence.

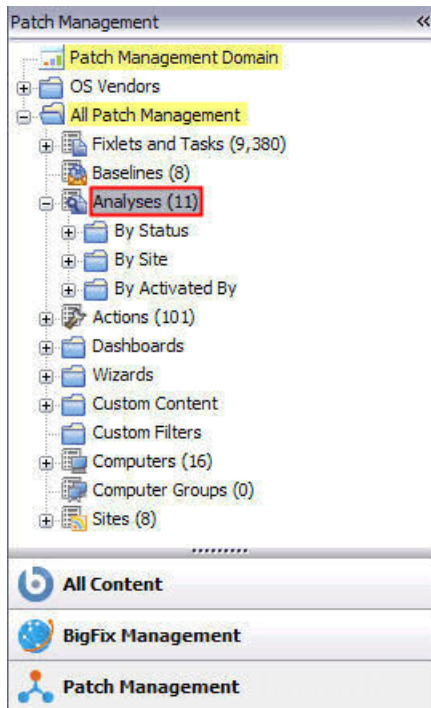
Action Logging

Use the Endpoint Dependency Resolution - Deployment Results analysis to confirm if an action is successful by checking the log file on the endpoint. You can also check if dependencies are resolved by deploying a test run before applying patches.

If an action is successful, the results are written in a log file on the endpoint. You can view the results of the action when you activate the **Endpoint Dependency Resolution - Deployment Results** analysis.

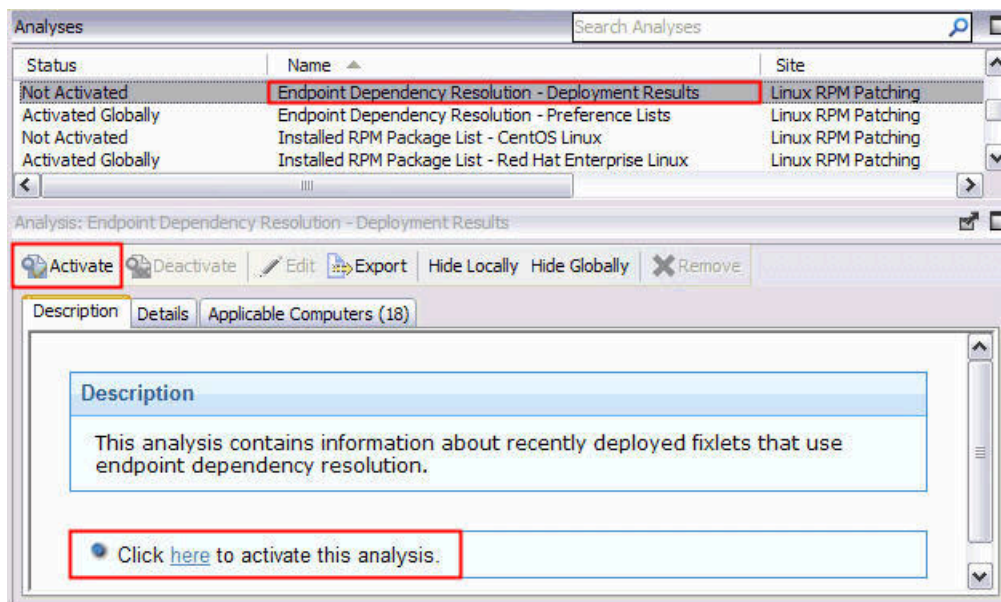
To activate the analysis, click the **Patch Management Domain**. From the navigation tree, click **All Patch Management > Analyses**.

Figure 5. Selecting Analyses from the navigation tree



Click **Endpoint Dependency Resolution - Deployment Results** from the Analyses List panel on the right. Click **Activate** or, from the Actions box, click the link that activates the analysis.

Figure 6. Activating the Endpoint Dependency Resolution - Deployment Results analysis



Click the **Results** tab in the Analysis window that is displayed after you activate the analysis.

When you review the properties of an endpoint, you can view the current deployment information on that system. To view this data, go to the **All Content** domain and select the Computers node. Select the computer that you want to inspect in the work area; then scroll down to the Deployment Results section.

When running a Debian patch Fixlet, you can also deploy a test run prior to applying the patch. You can view the **Endpoint Dependency Resolution - Deployment Results** analysis to determine if the dependencies are resolved and if an installation is successful.

You can limit the length of the output by running the task called **Endpoint Dependency Resolution - Set deployment results analysis report length**. To access this task, click **All Patch Management > Analyses** from the navigation tree. The default analysis report length is 100 entries.

Uninstall patches

Use the XXX task to uninstall Debian packages that do not have dependencies on other packages.

To uninstall patches, click the **Patch Management Domain**. In the navigation tree, click **All Patch Management > Sites > External Sites > Linux RPM Patching > Fixlets and Tasks**.

Figure 7. Selecting Fixlets and tasks from the navigation tree

In the List panel on the right, select **XXX**.

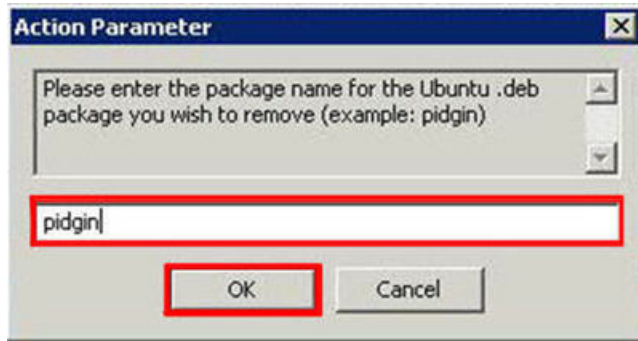
Figure 8. Selecting the Ubuntu .deb package to be uninstalled

In the Actions box, click the link to start the uninstallation action.

Figure 9. Selecting the link that uninstalls the .deb package

The **Action Parameter** window opens. Enter the package name and click **OK**. The affected computers report the uninstall patch task that was run as either completed or failed. You can also activate the Endpoint Dependency Resolution - Deployment Results analysis, which shows the results of an action in a log file.

Figure 10. Entering the package name and clicking OK



The Uninstall action removes the .deb package, but does not remove the configuration files for the package that is uninstalled. Click the purge action link to remove also the configuration files.

The last action in the Actions box opens a link that gives information about using **dpkg**, the Debian package manager.

Figure 11. Selecting the link that gives information about the dpkg package manager

Chapter 3. Support

For more information about this product, see the following resources:

- [Knowledge Center](#)
- [BigFix Support Center](#)
- [BigFix Support Portal](#)
- [BigFix Developer](#)
- [BigFix Wiki](#)
- [HCL BigFix Forum](#)

Chapter 4. Frequently asked questions

Learn from these questions and answers that are designed to help you better understand BigFix Patch for Debian.

Which versions of BigFix are the Debian Fixlet content for?

The current Fixlet content is only for BigFix version 9.2.

Where can I search and download the packages?

The current version of packages can be found and downloaded from the Debian website at <https://www.debian.org/security/>, while previous versions can be found in the Debian snapshot (<http://snapshot.debian.org>). You can also search packages at <https://www.debian.org/distrib/packages>.

Are there other Debian resources I should be aware of?

Here are a few helpful resources:

- Debian website: <https://www.debian.org/security/>
- Mail list: <https://lists.debian.org/debian-security-announce/>
- Debian snapshot: <http://snapshot.debian.org/>
- Search package: <https://www.debian.org/distrib/packages>
- Debian security repository host: <http://security.debian.org>
- Security Bug Tracker: <https://security-tracker.debian.org/tracker/>

Why would a patch complete successfully, but ultimately fail?

Under specific circumstances, a patch is successfully applied but the relevance conditions indicate that it is still needed in your deployment. Check to see if there are any special circumstances that are associated with the patch, or contact HCL Software Support.

If a patch fails to install, what should I do?

Ensure that you applied the patch to the correct computers. Also, check the following logs:

- `/var/opt/BESClient/___BESData/___Global/Logs/<YYYYMMDD>.log`
- `/var/opt/BESClient/EDRDeployData/EDR_DeploymentResults.txt`

For debugging purposes, you can add an extra `-n` to the last line of the action script after wait `/bin/bash "{parameter "cwd"}/InstallPackages.sh"`.

The `-n` flag disables the cleanup of following files:

- `/var/opt/BESClient/EDRDeployData/EDR_RepoData.txt`
- `/var/opt/BESClient/EDRDeployData/EDR_PackageList.txt`
- `/var/opt/BESClient/EDRDeployData/EDR_ResolverOutput.log`
- `/var/opt/BESClient/EDRDeployData/EDR_ResolverError.log`
- `/var/opt/BESClient/___BESData/Patches for Debian 7/apt`

These extra files provide the context information of the patching and can help in investigating the failure.

What are superseded patches?

Superseded Fixlets are Fixlets that contain outdated packages. If a Fixlet is superseded, then a newer Fixlet exists with newer versions of the packages. The newer Fixlet ID can be found in the description of the superseded Fixlet.

How do I find out if the Debian package is upgradeable?

You must first install the `apt-show-versions`, which is a rpm package to find out if any Debian packages are upgradeable.

1. To install `apt-show-versions`, enter `apt-get install apt-show-versions`.
2. To get a list of only the upgradeable packages, enter `apt-show-versions -u | less`. You can also use `grep` as follows: `apt-show-versions -u | grep "apache"`

How do I upgrade specific packages?

You should specify the package name. For example, if you want to upgrade `apache-perl` package, type the following command: `apt-get install apache-perl`. This command is useful if you just want to upgrade a single package and not the entire system.

The client logs contains a prefetch plug-in error that prevents the Fixlet from completing successfully. What is causing the error? What should I do?

The ActionScript that was running on the endpoint might have been blacklisted, causing the prefetch plug-in issue.

To resolve this issue, restart the BigFix client to clear the blacklist. To prevent the script from being blacklisted, set the `_BESClient_ActionManager_PrefetchPlugInTimeoutSeconds` client configuration setting with sufficient time for the patch to install and resolve dependencies. This client setting indicates how long the client should wait before blacklisting the script. You can use the **Change Timeout for Prefetch Plugins** task, available from the Patching Support site, to set the setting to 30 minutes (1800 seconds).

The `_BESClient_ActionManager_PrefetchPlugInTimeoutSeconds` setting varies based on the endpoint and the Fixlet being installed. To get the desired value, take the slowest endpoint and increase the setting to a high number, such as 3,000 seconds, then run a large Fixlet and see how long it takes. You can then take that number and multiple it by two. Alternatively, set the client setting to 600 seconds and adjust it accordingly if the suggested value does not work for you.

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