

**BigFix
Patch for Raspbian - User's Guide**



Special notice

Before using this information and the product it supports, read the information in [Notices](#) (on page 12).

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 Raspbian provides Fixlets that you use to manage the latest updates and service packs that Raspberry Pi releases. These Fixlets are available through the Patches for Raspbian sites.

BigFix Patch for Raspbian keeps your Raspbian clients up-to-date with the latest updates and service packs. Patch management is available through the Patches for Raspbian sites. For each new security update that becomes available, BigFix releases a Fixlet that identifies and updates all the computers in your enterprise that require the particular update.

With a few keystrokes, the BigFix Console operator applies the patch to all the relevant computers and monitors its progress as it deploys the patch throughout the network. The BigFix agent checks the operating system version, processors, and the installed packages to determine when and why a patch is necessary.

By 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 Versions and Platforms

Patch for Raspbian sites support Raspbian version 10 (buster).

Patch for Raspbian Fixlet sites provide support for the following versions and platforms:

Table 1. Versions and platforms supported by Patch for Raspbian Fixlet sites

Version	Platform (Supports servers and desktops)	Fixlet site name
Raspbian 10	armhf	Patches for Raspbian 10

Raspbian releases packages without associated announcements. Hence packages have "Unspecified" indicated in the Fixlet title.



Note: The repository includes the packages from **required**, **standard**, **important** and **extra** categories. The packages from the **optional** category are not included.

Site subscription

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

Subscribe to a 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 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.

Before you can deploy Raspbian Fixlets, the BigFix server must be subscribed to the Patching Support site. After gathering the site, select the following task based on your deployment and run the task.

Task ID: 71 Setup Download Whitelist for Raspbian (Windows Server)

This task applies to Windows servers.

Task ID: 72 Setup Download Whitelist for Raspbian (Linux Server)

This task applies to Linux servers.

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

Raspbian uses dynamic downloads while it fetches the packages. As a security measure, the server blocks every dynamic download request except the ones with URLs that match the patterns in the white list file. Except for the endpoints, ensure that the BigFix relay server is subscribed to Raspbian Fixlets.

Chapter 2. Managing security updates with Patch for Raspbian

Access Raspbian Fixlets sites for Raspbian updates from the BigFix console.

You can manage the security updates that Raspbian releases with the use of the Patch Management for Raspbian Fixlets. These Fixlets are available in the Patches for Raspbian Fixlets sites, which you can access from the Endpoint Manager console.

In Bigfix, Superseded Fixlets are Fixlets that contain outdated packages. If a Fixlet is superseded, a newer Fixlet exists with newer versions of the packages. You can find the new Fixlet ID in the description of the superseded Fixlet.

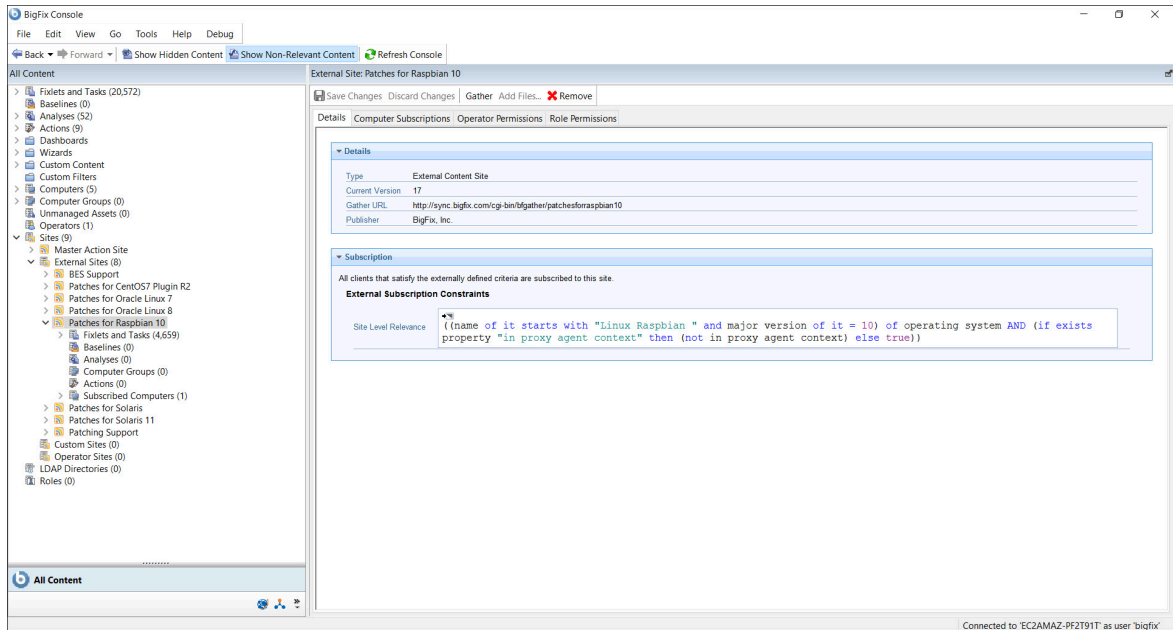
Deploying patches by using Fixlets

This topic describes how to deploy Patches by using Fixlets.

From the console, select the action for the appropriate Fixlets that you want to deploy. The action propagates throughout your deployment and applies patches based on the settings that you make in the Fixlet work area and the Take Action dialog box.

Deploy the Raspbian Fixlets from the BigFix Console:

1. In the BigFix Management domain, click **Management Sites**.
2. From the BigFix Management navigation tree, click **External Sites**. The navigation tree expands.
3. Select the correct version of Patches for Raspbian.

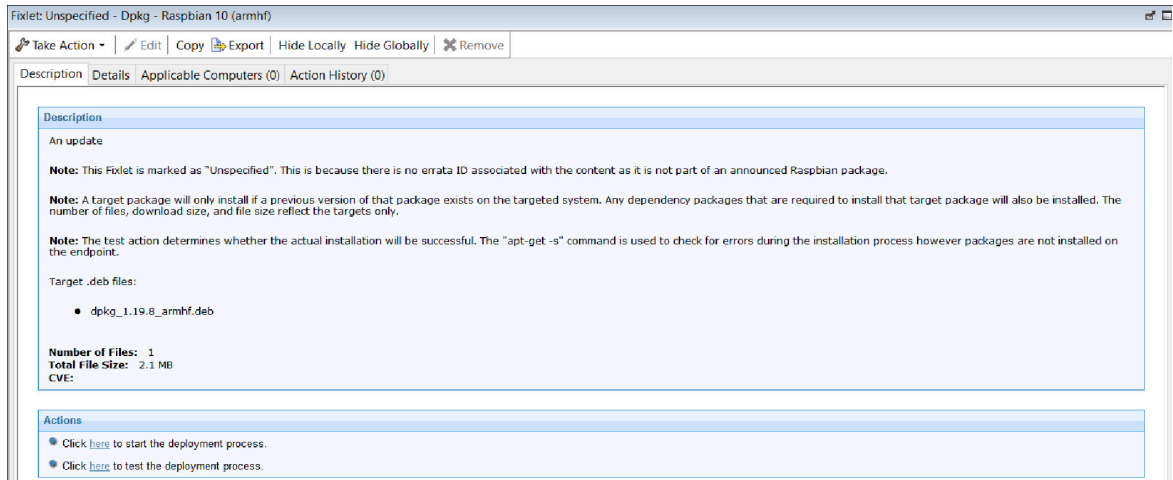


4. From the list panel on the right, double-click the Fixlet to deploy.

Name	Source Sev...	Site	Applicable ...	Open Actio...	Category	Download ...	Source	Source ID	Source Rele
Unspecified - Dpkg - Raspbian 10 (armhf)	<Unspecifi...	Patches for R...	0 / 1	0	required	2.04 MB	Raspbian	Unspecified	5/25/2022
Unspecified - Htcondor - Raspbian 10 (armhf)	<Unspecifi...	Patches for R...	0 / 1	0	extra	3.22 MB	Raspbian	Unspecified	5/23/2022
Unspecified - Htcondor-Dbg - Raspbian 10 (armhf)	<Unspecifi...	Patches for R...	0 / 1	0	extra	45.53 MB	Raspbian	Unspecified	5/23/2022
Unspecified - Htcondor-Dev - Raspbian 10 (armhf)	<Unspecifi...	Patches for R...	0 / 1	0	extra	288 KB	Raspbian	Unspecified	5/23/2022
Unspecified - Htcondor-Doc - Raspbian 10 (all)	<Unspecifi...	Patches for R...	0 / 1	0	extra	1.26 MB	Raspbian	Unspecified	5/23/2022
Unspecified - Libclassad-Dev - Raspbian 10 (armhf)	<Unspecifi...	Patches for R...	0 / 1	0	extra	218 KB	Raspbian	Unspecified	5/23/2022
Unspecified - Libclassad8 - Raspbian 10 (armhf)	<Unspecifi...	Patches for R...	0 / 1	0	extra	163 KB	Raspbian	Unspecified	5/23/2022
Unspecified - Ecdsautils - Raspbian 10 (armhf)	<Unspecifi...	Patches for R...	0 / 1	0	extra	13 KB	Raspbian	Unspecified	5/9/2022
Unspecified - Iceweasel - Raspbian 10 (all)	<Unspecifi...	Patches for R...	0 / 1	0	extra	118 KB	Raspbian	Unspecified	5/5/2022
Unspecified - Iceweasel-L10n-Ach - Raspbian 10 (all)	<Unspecifi...	Patches for R...	0 / 1	0	extra	118 KB	Raspbian	Unspecified	5/5/2022

The Fixlet opens in the work area. Click the individual tabs to review details about the selected Fixlet.

5. Click the link in the **Actions** group to start the deployment. The Raspbian website opens to display the package information and links to download files.



Patches for Raspbian Fixlet sites

Raspbian updates are available through the Raspberry Pi website.

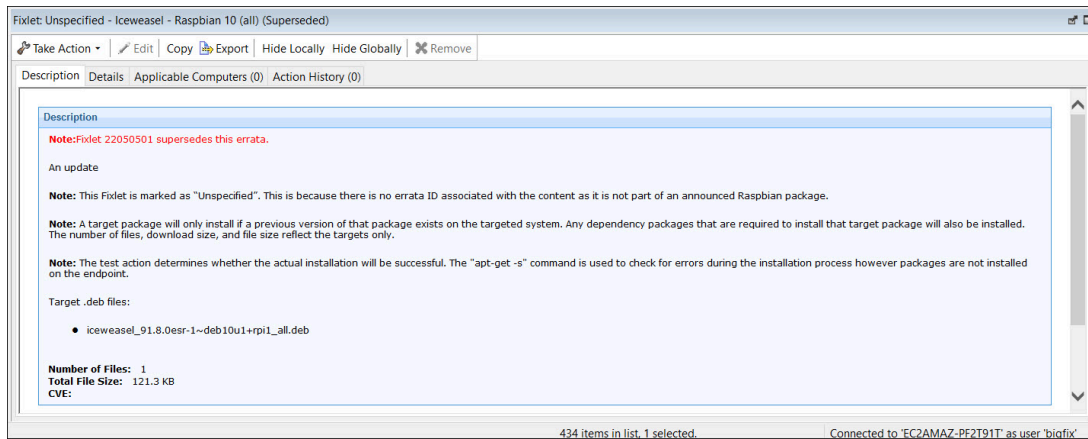
The Patches for Raspbian Fixlet sites provide the corresponding Fixlet content for Raspbian updates. Installation packages and details of the security notices are also released through the Raspbian website. The Raspbian website maintains an archive of the security notices.

Superseded Fixlets

Superseded Fixlets are Fixlets that contain outdated packages. If a Fixlet is superseded, a newer Fixlet exists with newer versions of the packages. You can find the new Fixlet ID in the description of the superseded Fixlet.

In BigFix, supersedence is a property of Fixlets that provides multiple packages. In Launchpad, the host website for applications such as Raspbian, supersedence is a property of every package.

Figure 1. Description of a superseded Fixlet showing the newer Fixlet ID



BigFix for Patch Management and Launchpad use the term *supersedence* differently. A package with superseded status on the Launchpad website does not mean the same as when a fixlet is described as superseded in BigFix.

In Launchpad terminology, *supersedence* is a property of every package. For BigFix for Patch, *supersedence* is a property of Fixlets that provides multiple packages. When a Fixlet is superseded, it means that there is an newer and more advanced Fixlet with the same set of packages.

Frequently Asked Questions - Supersedence

Learn the answers to frequently asked questions about Supersedence in Raspbian patching with BigFix.

What is Supersedence?

Supersedence is all about replacing an outdated Fixlet with the latest Fixlet.

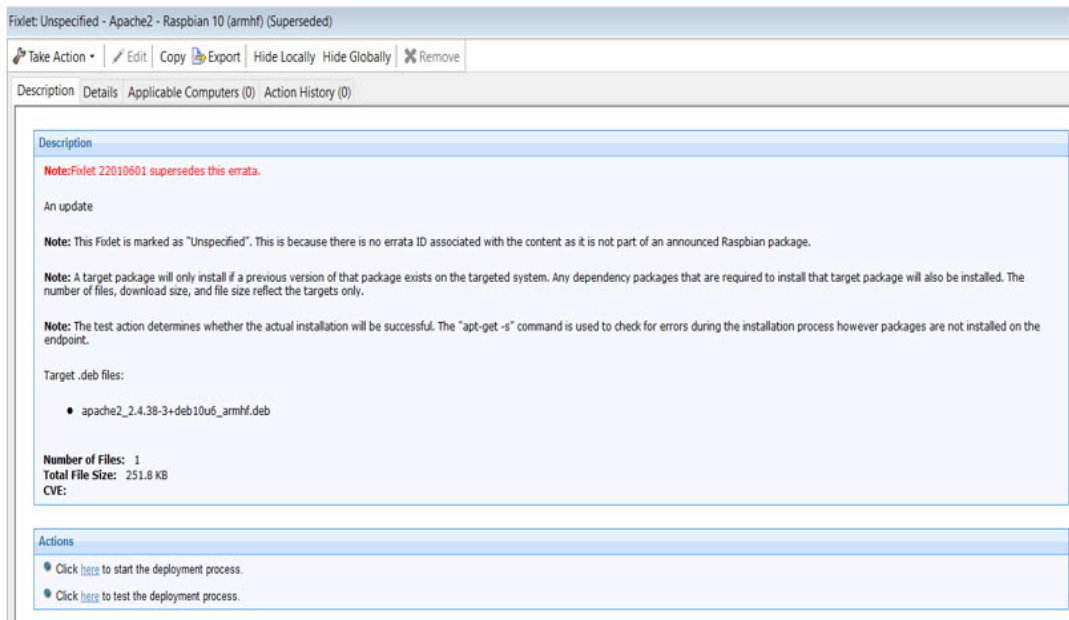
How does Supersedence work in Bigfix Patching?

Supersedence helps you update BigFix application Fixlets to their latest version by using newly released Fixlets. The superseded Fixlet replaces the outdated Fixlet containing the following details for backtracking.



Note: The `x-Fixlet-Superseded` field in the Fixlet states the newer version number.

Figure 2. Supersedence Information



The **superseded by** version (newer version) is displayed in the Description tab as shown in the sample Raspbian Fixlet screenshot.

What is a superseder?

Superseder is the **latest** Fixlet that replaces or updates the outdated version.

What is a supersedee?

Supersedee is an **outdated** Fixlet that is replaced by the latest Fixlet.

Can I use the superseded Fixlet to deploy an application even if a latest version is available for the same application?

Yes. You can update the application to the latest version. You can also still use the superseded Fixlet to deploy the application. The Fixlet description mentions that there is an update available for the application.

What are the exceptions when the superseded Fixlets cannot be used?

Applications like Google Chrome allows you to download only the latest version available.

- **Downloadable version:** In such applications, the superseded Fixlets would deploy only the **latest** available version.
- **Reason:** The download link remains constant in all the Fixlets regardless of being a regular Fixlet or a superseded Fixlet.

Does the architecture of the package play a role in supersedence?

Yes. For example, the amd64 architecture Fixlet can be superseded only by another amd64 architecture Fixlet and not by any other architecture Fixlet.

How does supersedence work in Raspbian?

Superseding Fixlets in Raspbian work based on the package name and version number.

What are Kernel Fixlet and how does supersedence work in Raspbian Kernel Fixlets?

Kernel Fixlets are the fixlets that have the package names preceded by *Linux-image*, for example - `linux-image-<version>-<flavour>`.

Supersedence in Kernel Fixlets:

- In a Kernel Fixlet with version X.Y.Z-W, X.Y is called as the **minor version**. It is a prerequisite that the minor versions **match** for the supersedence to work. That is, the minor version of superseder should match the supersedee packages since HWE (Hardware Enablement) scenario is required for Raspbian kernel Fixlets.

For example, linux-image-4.4.x can only supersede another linux-image-4.4.x, linux-image-4.8.x can only supersede another linux-image-4.8.x, and so on.

- Supersedence occurs only if it is part of the **same type**, that is linux-image-<version>-generic can only supersede another linux-image-<version>-generic. This applies to those that have the extra flavour type in its name.

For example, linux-image-extra-4.4.0-101-generic will be superseded by linux-image-extra-4.4.0-103-generic, but cannot be superseded by linux-image-4.4.0-103-generic.

Will the same Fixlet be superseded two or more times?

No, when a Fixlet is superseded by the latest version, the Fixlet is marked as superseded:True in the `seenfile` of the corresponding OS code to avoid superseding the Fixlet again.

Are there any relevance changes for the superseded Fixlets?

Yes, additional relevance checks are required for superseded Fixlet as shown below.

```
<Relevance>(value of setting "_BESClient_Raspbian_EnableSupersededEval" of
client as integer = 1) | false</Relevance>
```

Installing multiple package baselines

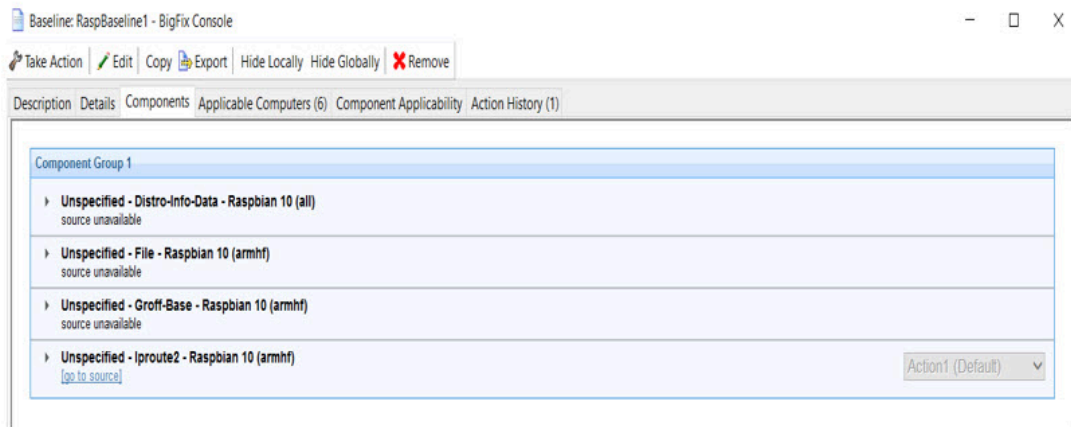
With BigFix Patch you can combine the installation of updates for multiple packages in a baseline into a single task, which can reduce the execution time of the baseline installation.

Baselines can help you gather multiple Fixlets into groups, which you can apply immediately to any set of target computers. Baselines are powerful ways to deploy a group of actions across an entire network. The multiple-package baseline installation solution helps address the poor performance that arises because of the dependency resolution and package installation that is done separately for each Fixlet.

The multiple-package baseline installation feature helps you to save time when you deploy Fixlets with multiple unique packages from a baseline.

1. Create a baseline.

Highlight the Fixlets from a Fixlet site and select **Add to New Baseline** from the menu. You can also select **Create New Baseline** from the **Tools** menu. You can give a custom name to the baseline.



2. Selectively add the patch Fixlets to the baseline.

Ensure that for all Fixlets, the baseline remains relevant on applicable computers where this component is relevant option is selected.



Note: If you add two or more Fixlets to the baseline that affect different versions of the same package, the installation task will skip the older versions of the package and install the latest version of the package.



Attention: Before you run the baseline, ensure that you meet the following requirements:

- The repositories that are registered on the endpoint must contain the target packages and all the required dependency packages.
- Do not run multiple baselines from the same site on the same endpoint.
- Follow the baseline best practices that are documented in the following technote: https://hclpnpsupport.service-now.com/csm?id=kb_article&sys_id=d288c2021b098c9477761fc58d4bcbdf

Frequently asked questions

The questions and answers in this section can help you to better understand Patch for Raspbian.

What do I do when Fixlets fail to install with the following message in the EDR log?

"Warning: Nothing to install. Please check if you are using the latest kernel."

This message is logged only with Fixlets that deploy kernel packages. A kernel Fixlet becomes irrelevant if the endpoint does not have the target kernel package installed or if the endpoint's active kernel is at a lower version than the target kernel package. An endpoint is still considered subject to kernel vulnerabilities even if it has the latest kernel installed but not using it actively.

To remediate the issue, restart the endpoint and ensure it is using the latest kernel available.

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