BigFix

Patch for Amazon Linux User's Guide

Special notice

Before using this information and the product it supports, read the information in Notices *(on page xxv)*.

Edition notice

This edition applies to BigFix version 10 and to all subsequent releases and modifications until otherwise indicated in new editions.

Contents

Chapter 1. Overview

BigFix Patch for Amazon Linux keeps your Linux™ clients current with the latest updates and service packs.

For each new patch or update that becomes available, BigFix releases a Fixlet® that can identify and remediate all the computers in your enterprise that need it. 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 agent checks the operating system version, file versions, the language of the system and other relevant factors to determine when and if a patch is necessary.

BigFix tests each Fixlet® in its laboratory before it is released and often finds issues that are dealt with by attaching extra notes to the Fixlet®. These notes typically allow the Console Operator to work around the problem, adding extra value to the patching process. BigFix incorporates also user feedback into notes, ensuring that you receive the latest information.

Fixlets allow you to 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 Patch for Amazon Linux provides Fixlets for Amazon Linux Security Advisories, Fix Advisories, and Enhancement Advisories on Amazon Linux platforms.

Table 1. Supported platforms and patches for BigFix Patch for Amazon Linux

The following table lists the supported platforms and the corresponding sites that contains the Fixlets for patching.

Supported Platform	Fixlet Site Name	Type of Update
Amazon Linux 2 (x86_64)	Patches for Amazon Linux 2	See Supported Amazon Linux repositories (on page 8) to view the list of repositories that contain the supported packages.
Amazon Linux 2 (aarch64)	Patches for Amazon Linux 2 Graviton	See Supported Amazon Linux Graviton repositories (on page 8) to view the list of repositories that contain the supported packages.
Amazon Linux 2023 (x86_64)	Patches for Amazon Linux 2023	See Supported Amazon Linux 2023 (x86_64) repositories (on page 8) to view the list of repositories that contain the supported packages.

BigFix generates Fixlet content based on the Amazon Linux advisories published at https://alas.aws.amazon.com/alas2.html.

⚠️ **Important:** BigFix does not generate content for packages that are released without an official Amazon Linux advisory.

Supported Amazon Linux repositories

BigFix Patch for Amazon Linux supports the packages in several Amazon Linux repositories.

The following table lists the repositories that contain the supported packages for BigFix Patch for Amazon Linux versions.

Table 2. Supported Amazon Linux repositories

Amazon Linux version	Repository
Amazon 2 (x86_64) Core	https://cdn.amazonlinux.com/2/core/2.0/x86_64/mirror.list
Amazon 2 (x86_64) Extras	https://cdn.amazonlinux.com/2/extras/docker/stable/x86_64/mirror.list
Amazon 2 (aarch64) core	https://cdn.amazonlinux.com/2/core/2.0/aarch64/mirror.list
Amazon 2 (aarch64) Extras	https://cdn.amazonlinux.com/2/extras/docker/stable/aarch64/mirror.list
Amazon Linux 2023 (x86_64) core	https://cdn.amazonlinux.com/al2023/core/mirrors/latest/x86_64/mirror.list

📝 **Note:** There are cases where packages are made publicly available in the repositories without an associated Amazon Linux advisory. In such cases, no Fixlets are provided by BigFix.

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*.

Patching method

BigFix offers more flexibility to the patch management solution by using native tools.

The Fixlets for all Amazon Linux content use the Yellow dog Updater, Modified (YUM), the default patch manager for Amazon Linux. YUM is a package management tool that updates, installs, and removes Red Hat Package Manager (RPM) packages. YUM uses a command-line interface and simplifies the process of installing, uninstalling, and updating packages, provided that there is access to the YUM repository.

YUM replaces these EDR utilities and gives you more flexibility in terms of patch deployment and providing results that are in parallel with Red Hat and Amazon Linux solutions. The following sites are available for Amazon Linux site uses YUM because it reduces dependency issues and improves performance.

YUM utility configuration settings

The BigFix Patch for Amazon Linux sites that apply the YUM utility use Fixlet settings in `/etc/yum.conf` except for the following YUM configuration settings:

- cachedir
- keepcache
- plugins
- reposdir
- pluginpath
- pluginconfpath
- metadata_expire
- installonlypkgs

Identifying file relevance with Native tools content

The native tools capture file relevance in the same way as EDR. Both methods check for the relevance clause `exist lower version of a package, but not exist higher version of it`. If both tools are applied to the same deployment, the relevance results are the same.

Chapter 2. Using the download plug-in for Amazon Linux

The site **Patches for Amazon Linux** uses **CentOS Plug-in R2** for downloading the packages from the internet and caches it on BigFix server. CentOS Plug-in R2, is an executable program that downloads relevant packages directly from the patch vendor. Fixlets use an internal protocol to communicate with the download plug-in to download files. These Fixlets are based on updates made by the vendor.

For the Fixlet to be able to use the protocol, register the download plug-in on the BigFix server. Use the Manage Download Plug-ins dashboard to register the appropriate plug-in.

Notes:

- Download plug-ins support basic authentication only.
- The BigFix server and the BigFix client must be on the same version to avoid a null error.

Table 3. Amazon Linux 2 Patches Download Plug-ins

Download Plug-in Name	Applicable Sites
CentOS Plug-in R2	Patches for Amazon Linux 2 Patches for Amazon Linux 2 Graviton Patches for Amazon Linux 2023

The **CentOS Plug-in R2** downloads and caches patches directly from the vendor's website to the BigFix server, improving the accuracy and reliability of package dependency resolution and repository support.

Note: The **CentOS Plug-in R2** does not work when the **Require SHA-256 Downloads** option in the BigFix Administration tool is enabled. When this option is enabled, all download verification use only the SHA-256 algorithm. However, there are certain repository metadata from the vendor, which do not contain SHA-256 values for packages in the repository that are used by the plug-in.

Consider disabling the **Require SHA-256 Downloads** option to successfully deploy a patch. Security and package integrity is not compromised as another layer of checking and verification is done using the GPG signature of the package. For more information about the download option, see BigFix Platform Installation Guide at https://help.hcltechsw.com/bigfix/10.0/platform/Platform/Installation/c_security_settings.html.

The download plug-in is highly extensible and robust, enabling such possibilities:

- Customize available repositories through a user extensible repository list.
- Installation and dependency resolution can easily be extended to all repositories, not just those that are shipped out of the box.
- Functionalities can easily be extended by customers and service teams.

It also improves performance related to downloading large numbers of packages, which consequently shortens the turnaround time for patching.

The CentOS Plug-in accesses the following mirror list to get the URLs:

- For **Patches for Amazon Linux 2**:
    ◦ https://cdn.amazonlinux.com/2/core/2.0/x86_64/mirror.list
    ◦ https://cdn.amazonlinux.com/2/extras/docker/stable/x86_64/mirror.list
- For **Patches for Amazon Linux 2 Graviton**:
    ◦ https://cdn.amazonlinux.com/2/core/2.0/aarch64/mirror.list
    ◦ https://cdn.amazonlinux.com/2/extras/docker/stable/aarch64/mirror.list
- For **Patches for Amazon Linux 2023**:
    ◦ https://cdn.amazonlinux.com/al2023/core/mirrors/latest/x86_64/mirror.list
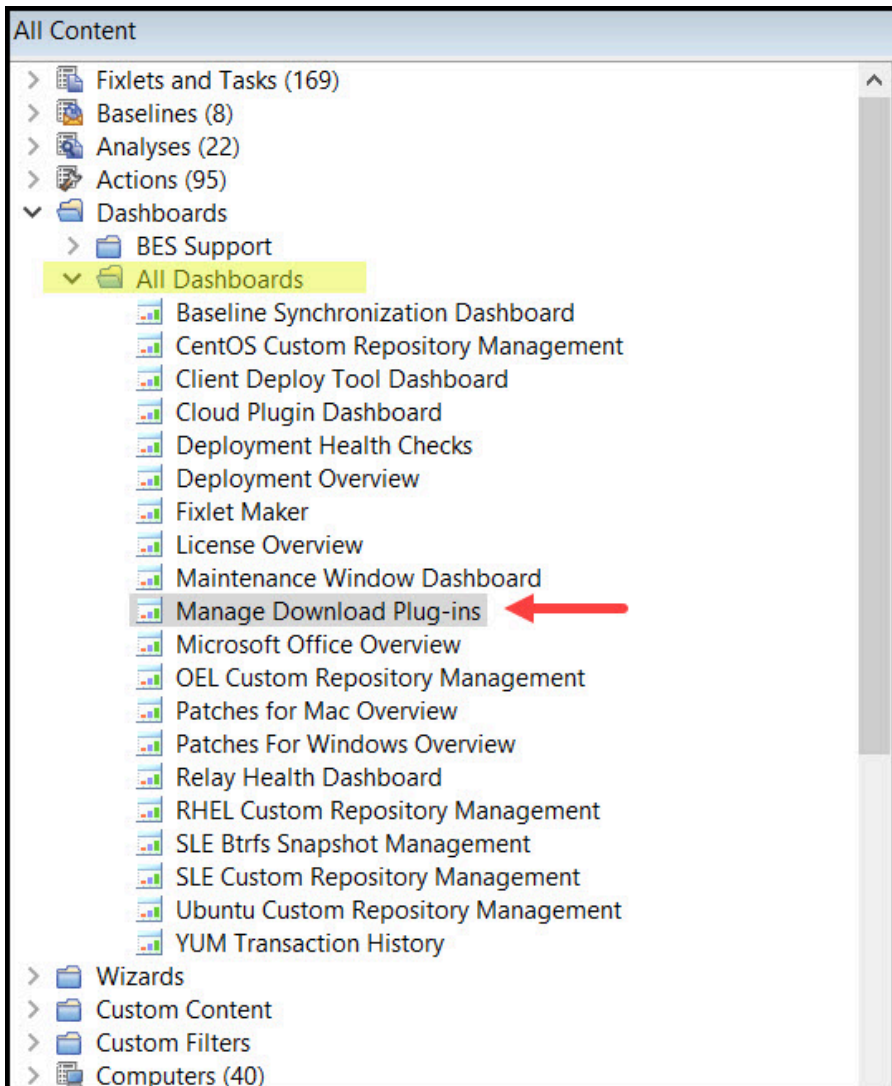
Manage Download Plug-ins dashboard overview

Use the Manage Download Plug-ins dashboard to oversee and manage download plug-ins in your deployment.

You can use the Manage Download Plug-ins dashboard to register, unregister, configure, and upgrade the download plug-ins for different patch vendors.

You must subscribe to the Patching Support site to gain access to this dashboard. To view the Manage Download Plug-ins dashboard, go to **All Content domain > All Dashboards > Manage Download Plug-ins**.

Figure 1. Patch Management navigation tree

The dashboard displays all the servers and windows-only relays in your deployment. Select a server or relay to view all the plug-ins for that computer. The dashboard shows you also the version and status for each plug-in in one consolidated view.

Figure 2. Manage Download Plug-ins dashboard

A plug-in can be in one of the following states:

- Not Installed
- New Version Available
- Up-To-Date
- Not Supported

The dashboard has a live keyword search capability. You can search based on the naming convention of the servers, relays, and plug-ins.

Note: If you install the download plug-in on BigFix relays, you must also install it on the BigFix server to avoid download issues.

Registering the Download Plug-in

To install the Amazon Linux 2 patches from site **Patches for Amazon Linux 2**, register the CentOS R2 Download Plug-in R2 from the Manage Download Plug-ins Dashboard.

You must complete the following tasks:

- Ensure that the BigFix server and the BigFix client are on the same version to avoid a null error.
- Subscribe to the **Patching Support** site to gain access to the Manage Download Plug-ins dashboard.
- Activate the **Encryption Analysis for Clients** analysis, which is available from the **BES Support** site.

- Activate the **Download Plug-in Versions** analysis, which is available from the **Patching Support** site.
- If you want to encrypt endpoints, deploy the **Enable Encryption for Clients** Fixlet, which is available from the **BES Support** site.

When you register the download plug-in on a computer without the plug-in, the plug-in is automatically installed and the configuration file is created.

If a download plug-in is already installed on the computer, the configuration file is overwritten.
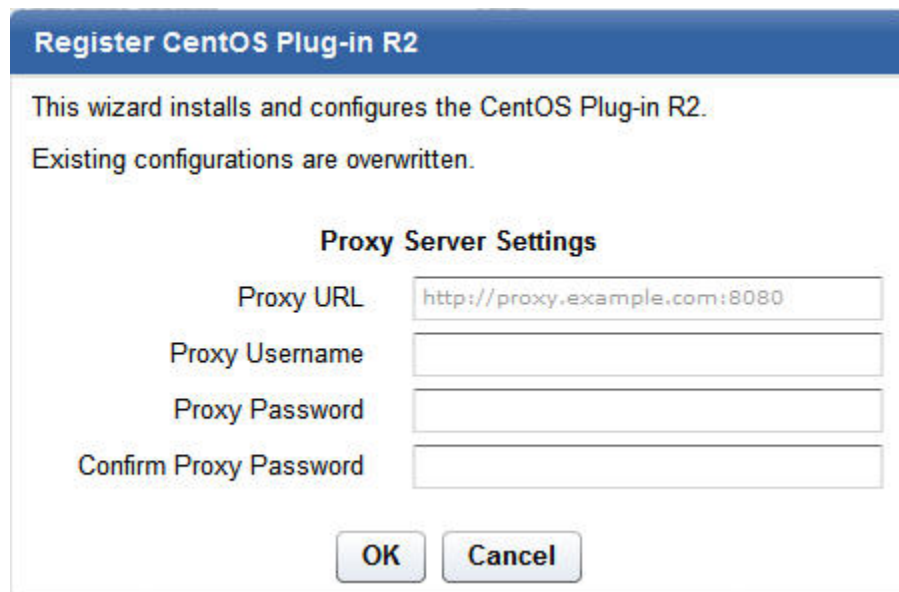
1. From the Patch Management domain, click **All Patch Management > Dashboards > Manage Download Plug-ins dashboard**.
2. From the Servers and Relays table, select the server on which the download plug-in is to be registered.

   ⚠️ **Important:** You must always register the download plug-in on the BigFix server.

3. From the Plug-ins table, select **CentOS Plug-in R2**.
4. Click **Register**.

   The Register CentOS Plug-in R2 wizard displays.

   Figure 3. Register CentOS Download Plug-in R2 wizard

5. Enter the proxy parameters if the downloads must go through a proxy server.

   📝 **Note:** Only basic authentication is supported.

   Proxy URL

The URL of your proxy server. It must be a well-formed URL, which contains a protocol and a host name. The URL is usually the IP address or DNS name of your proxy server and its port, which is separated by a colon. For example: `http://192.168.100.10:8080`.

Proxy Username

Your proxy user name if your proxy server requires authentication.

Proxy Password

Your proxy password if your proxy server requires authentication.

Confirm Proxy Password

Your proxy password for confirmation.

6. Click **OK**.

   The Take Action dialog displays.
7. Select the target computer.
8. Click **OK**.

You successfully registered the CentOS Download Plug-in R2.

Configuring Download Plug-in settings

Patches for Amazon Linux site uses CentOS Download Plug-in R2 from the Manage Download Plug-ins Dashboard, so please refer Configuring the basic CentOS Download Plug-in R2 settings to configure Amazon Download Plug-in R2.

Configuring the advanced Download Plug-in settings

Patches for Amazon Linux site uses CentOS Download Plug-in R2 from the Manage Download Plug-ins Dashboard. Please refer to Configuring the advanced CentOS Download Plug-in R2 settings for configuring advanced settings.

Unregistering the Download Plug-in

Patches for Amazon Linux site uses CentOS Download Plug-in R2 from the Manage Download Plug-ins Dashboard. So please refer to Unregistering the CentOS Download Plug-in R2.

Upgrading the Download Plug-in

Patches for Amazon Linux site uses CentOS Download Plug-in R2 from the Manage Download Plug-ins Dashboard. So please refer to Upgrading the CentOS Download Plug-in R2 for unregistering.

Chapter 3. Using BigFix Patch for Amazon Linux

BigFix Patch provides a simplified patching process for downloading and installing patches that are relevant to a target endpoint. Use the Fixlets on the Patching Support and the various Patches for Amazon Linux Fixlet sites to apply patches to your deployment and also you can view the Amazon Linux bulletin for a specific Fixlet.

Patching using Fixlets

You can apply Amazon Linux patches to your deployment by using the Fixlets that are available from the Amazon Linux Fixlet sites.

Kernel Fixlets provide the option to upgrade or install all kernel packages. The upgrade option replaces existing kernel packages with later versions. The install option installs the later kernel packages next to the previous versions. The default behavior for kernel updates is to install packages side by side. Additionally, each kernel update Fixlet® provides the ability to test each of these options.

1. From the Patch Management domain, click **OS Vendors > Amazon Linux 2**, and navigate to the patch content using the domain nodes.

   Figure 4. Patch Management navigation tree
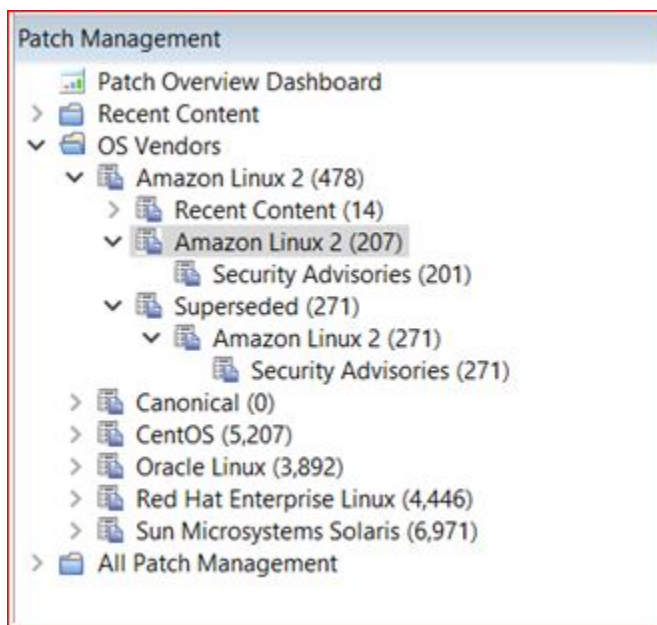
2. In the content that is displayed in the list panel, select the Fixlet that you want to deploy. The Fixlet opens in the work area.
3. Click the tabs at the top of the window to review details about the Fixlet.
4. Click **Take Action** to deploy the Fixlet.

   You can also click the appropriate link in the Actions list:

◦ You can start the deployment process.

Figure 5. Take action to start deployment process

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

Figure 6. Take action to deploy a test

◦ You can view the Security bulletin by selecting **Click here to view the patch page** action to view the patch page.

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**.

Chapter 4. Multiple-Package Baseline Installation

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

Baselines can help you gather multiple Fixlets into groups, which you can apply immediately to any set of target computers. It is a powerful way to deploy a group of actions across an entire network. However, each Fixlet in a baseline creates a separate YUM update transaction when the baseline is run. A single baseline can have numerous YUM calls, which can severely impact performance as it increases the time taken to complete all the transactions.

The multiple-package baseline installation solution helps address the poor performance that is due to the dependency resolution and package installation that is done separately for each Fixlet. This solution requires you to enable the feature at the start of the baseline and append the installation task to install the relevant packages from a single YUM call.

Use the **Enable the Multiple-Package Baseline Installation feature** task, to set the flag that instructs Fixlets to add packages to a list instead of installing them. The flag is cleared after the baseline is completed. You must add the appropriate task at the start of the baseline to allow the installation of multiple packages from a single command.

> ✏️ **Notes:** The multiple-package baseline installation feature does not support the pre-cache option **Start download before all constraints** are met in **Take Action**.

A multiple-package installation task is made available for each Amazon Linux 2 operating system version and architecture. You must add the appropriate installation task at the end of your baseline to complete the dependency resolution, download the packages, and then install them on the endpoints.

> ⚠️ **Important:** The **Enable the Multiple-Package Baseline Installation feature** and **Multiple-Package Baseline Installation** tasks must exist in the same baseline.

Available from the Patches for Amazon Linux 2 site:

- Multiple-Package Baseline Installation - Amazon Linux 2 - x86_64

Available from the Patches for Amazon Linux 2 Graviton site:

- Multiple-Package Baseline Installation - Amazon Linux 2 Graviton - aarch64

Available from the Patches for Amazon Linux 2023 site:

- Multiple-Package Baseline Installation - Amazon Linux 2023 - x86_64

These tasks must be run at the end of the baseline to do dependency resolution and package installation for the entire baseline in a single instance.

You can also do a dry run of the installation to preview the changes on the packages to avoid broken dependencies, which might be due to undesired packages updates. The test action outputs to the following files at `/var/opt/BESClient/EDRDeployData`:

`PkgToInstallList.txt` **file**

This file contains packages that are to be installed after a dependency check.

`PkgToRemoveList.txt` **file**

This file contains the packages that are to be removed from the target Amazon Linux 2 endpoint.

BigFix Patch also provides the following content to facilitate the installation:

Delete Amazon Linux 2 Package List File for Multiple-Package Baseline Installation

Deletes the package list file on targeted Amazon Linux 2 computers.

Add this task at the beginning of the baseline to avoid issues that might be related with resolving dependencies for the packages.

Delete Amazon Linux 2 Graviton Package List File for Multiple-Package Baseline Installation

Deletes the package list file on targeted Amazon Linux 2 Graviton computers.

Add this task at the beginning of the baseline to avoid issues that might be related with resolving dependencies for the packages.

Delete Amazon Linux 2023 Package List File for Multiple-Package Baseline Installation

Deletes the package list file on targeted Amazon Linux 2023 computers.

Add this task at the beginning of the baseline to avoid issues that might be related with resolving dependencies for the packages.

For detailed information about using the multiple package installation feature, see Installing multiple packages in a baseline .

Installing multiple packages in a baseline

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

- Set the client download precache size to at least 2GB. Use the `_BESClient_Download_PreCacheStageDiskLimitMB` setting to set the suggested size for the precache.
- Set the client download cache size to at least 2GB. Use the `_BESClient_Download_DownloadsCacheLimitMB` setting to set the suggested size for the cache.
- Ensure that you have at least 4GB of free disk space on each endpoint.
- Install and enable GPG keys on the endpoints. You can use the **Import RPM-GPG-KEY-amazon-linux-2-release** task (ID# 301), available from the Fixlet sites, to import the necessary keys.

To run a single YUM call to install or update packages for all Fixlets in the baseline, you must add the task to enable the feature and add the appropriate multiple-package baseline installation task into the baseline. For a list of the available tasks, see Multiple-Package Baseline Installation *(on page 17)*.

📝 **Notes:**

- Packages with broken dependencies are skipped whenever possible. However, there are cases when packages cannot be skipped and the installation is canceled. These are some of the known cases:
    - Packages with dependency issues with Amazon Linux 2.
    - Packages with dependency errors occur during installation, which is usually indicated by the following error message: `File conflicts happen when two packages attempt to install files with the same name but different contents`.
- The multiple-package baseline installation feature does not support the pre-cache option **Start download before all constraints** are met in **Take Action**.

⚠️ **Important:** The **Enable the Multiple-Package Baseline Installation feature** and **Multiple-Package Baseline Installation** tasks must be added in the same baseline in order for this feature to work. Also, the order of the tasks and Fixlets are crucial to the baseline installation, therefore take careful note of the steps as they must be taken in the correct order.

1. Create a baseline.

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

2. **Optional:** Add the **Delete Amazon Linux 2 Package List File for Multiple-Package Baseline Installation** task before adding any of the Fixlets.
   Ensure that the **Baseline will be relevant on applicable computers where this component is relevant** option is not selected.

   Figure 7. Baseline component option
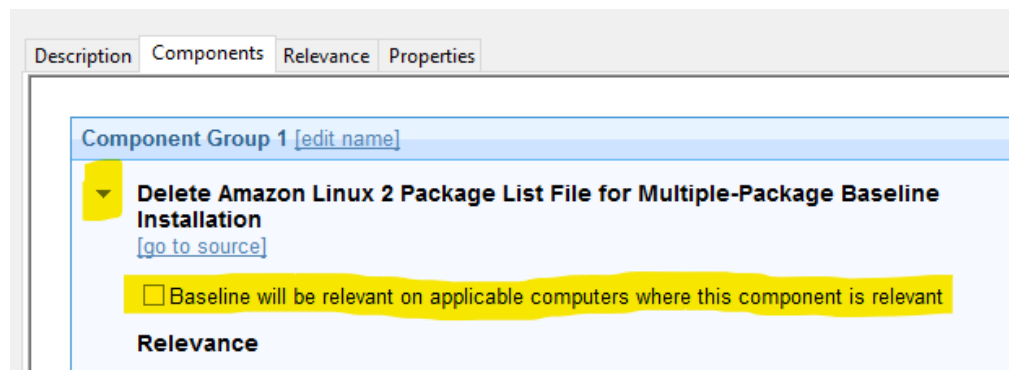
3. Add the appropriate **Enable the Multiple-Package Baseline Installation feature** task.

Ensure that the **Baseline will be relevant on applicable computers where this component is relevant** option is not selected.

4. Selectively add the patch Fixlets in the baseline.

   Ensure that for all Fixlets the **Baseline will be 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 one only.

5. Add the appropriate **Multiple-Package Baseline Installation** task at the end of the baseline. With this task, you can deploy any of the following actions:
   - Run a preview of the installation, without actually installing the packages, to check for possible issues.
   - Install all the RPMs in a single YUM transaction.

   Ensure that the **Baseline will be relevant on applicable computers where this component is relevant** option is not selected.

Before running 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.
- Allow enough time for a Fixlet, which is using the multiple-package installation method, to complete all YUM transactions and refresh the status on the endpoints before individually deploying the same Fixlet.
- Do not run multiple baselines from the same site on the same endpoint.
- Follow the Baseline Best Practices documented in the following technote: https://hclpnpsupport.service-now.com/csm?id=kb_article&sys_id=d288c2021b098c9477761fc58d4bcbdf

> ✏️ **Note:** When you deploy the baseline, the initial sub-action status for all the patch Fixlets will show that they failed. This is the expected behavior. The process for downloading and installing the packages in the baseline is not done at the Fixlet action level, but in the **Multiple-Package Baseline Installation** task. When the baseline completes, the baseline sub-action status of the Fixlets will reflect the final state of each patch installation.

Chapter 5. YUM transaction management

View YUM transaction history and manage transactions through the **YUM Transaction History** dashboard, which works with Amazon Linux.

The dashboard displays the YUM transaction history and can be used to roll back, undo, and redo transactions in your deployment.

Rollback

The rollback feature undoes all transactions up to the point of the specified transaction.

Undo

The undo feature reverts a selected transaction only.

Redo

The redo feature repeats the recent transaction action.

Note: Active kernel cannot be rolled back for a kernel update.

Requirements

To use the **YUM Transaction History** dashboard, ensure that you have the following requirements.

- Use YUM version 3.2.28 and later. The rollback functionality is not supported for the YUM versions 3.2.28 to 3.2.29-22.

  Note: In the dashboard, if the YUM version of a selected endpoint is earlier than version 3.2.29-22, a warning sign next to the YUM version will indicate that the version does not support the rollback action. The **Rollback** button is disabled for all transactions if the version is not supported.

- Subscribe to the Patching Support site.
- Activate the **YUM Transaction History** analysis.

YUM transaction actions

The **Actions** column identify the YUM transaction actions in the dashboard. The following table give details of the actions for every transaction.

Table 4. Description of transaction actions

Action	Abbreviation	Description
Downgrade	D	At least one package has been downgraded to an older version.

Table 4. Description of transaction actions (continued)

Action	Abbre-viation	Description
Erase	E	At least one package has been removed.
Install	I	At least one new package has been installed.
Obsoleting	O	At least one package has been marked as obsolete.
Reinstall	R	At least one package has been reinstalled.
Update	U	At least one package has been updated to a newer version.

For more information about YUM history, go to Red Hat Product Documentation site.

YUM transaction analyses

The **YUM Transaction History** dashboard uses the following analyses:

YUM Transaction History analysis

BigFix generates a log which records the results of the actions that are taken in the YUM Transaction History dashboard. The YUM History Transaction analysis retrieves the content of the action log `yum_history.log`. The log is located in `/var/opt/BESClient/EDRDeployData/yum_history.log`.

YUM rollback capable field

YUM Logs analysis

YUM log is the official log that YUM generates by default in `/var/log/yum.log`. To change the default location, modify the log file settings in `/etc/yum.conf`. The YUM log analysis is very useful for troubleshooting purposes.

The analysis has 2 properties.

YUM Log property

Logs all the operations that are performed and identifies the transactions that are modified. This log retrieves the last 40 lines of the YUM log file.

YUM History Dashboard action log

This log lists the action logs for the redo, undo, and rollback operations from the action. The actions write the logs to `/var/opt/BESClient/EDRDeployData/yum_history.log`. The YUM History Dashboard action records the latest 5 actions.

Rolling back a YUM transaction

Use the YUM Transaction History dashboard to roll back all transactions up to the point of the specified transaction.

Ensure that you meet the following requirements:

- Use YUM version 3.2.28 and later. The rollback functionality is not supported for the YUM versions 3.2.28 to 3.2.29-22.

  Note: In the dashboard, if the YUM version of a selected endpoint is earlier than version 3.2.29-22, a warning sign next to the YUM version will indicate that the version does not support the rollback action. The **Rollback** button is disabled for all transactions if the version is not supported.

- Subscribe to the Patching Support site.
- Activate the **YUM Transaction History** analysis.

Note: Active kernel cannot be rolled back for a kernel update.

1. From the BigFix console, go to **External Sites > Patching Support > Dashboards > YUM Transaction History**.
2. Select the endpoint whose YUM history you want to view.

   Note: If the YUM version of a selected endpoint is earlier than version 3.2.29-22, a tooltip will indicate that the version is not supported.

3. Select the transaction that you want to roll back to.
4. Click **Rollback**.

   The **Rollback Up To Transaction** window opens.
5. **Optional:** You can enter additional flags to further customize the rollback action.
6. Click **Apply**.
7. From the **Take Action** window, select the computer and click **OK** to run the action.

Undo a YUM transaction

Use the YUM Transaction History dashboard to revert to a single, specific transaction.

Ensure you meet the following requirements:

- Use YUM version 3.2.28 and later.

  Note: In the dashboard, if the YUM version of a selected endpoint is earlier than version 3.2.29-22, a warning sign next to the YUM version will indicate that the version does not support the rollback action. The **Undo** button is disabled for all transactions if the version is not supported.

- Subscribe to the Patching Support site.
- Activate the **YUM Transaction History** analysis.

Note: Active kernel cannot be rolled back for a kernel update.

1. From the BigFix console, go to **External Sites > Patching Support > Dashboards > YUM Transaction History**.
2. Select the endpoint whose YUM history you want to view.
3. Select the transaction whose rollback that you want to undo.
4. Click **Undo**.
5. In the **Undo Transaction** window, click **Apply**.
6. From the **Take Action** window, select the computer and click **OK** to run the action.

Redo a YUM transaction

Use The YUM Transaction History dashboard to repeat the recent transaction action.

Ensure that you meet the following requirements:

- Use YUM version 3.2.28 and later.

  Note: In the dashboard, if the YUM version of a selected endpoint is earlier than version 3.2.29-22, a warning sign next to the YUM version will indicate that the version does not support the rollback action. The **Redo** button is disabled for all transactions if the version is not supported.

- Subscribe to the Patching Support site.
- Activate the **YUM Transaction History** analysis.

Note: Active kernel cannot be rolled back for a kernel update.

1. Using the BigFix console, go to **External Sites > Patching Support > Dashboards > YUM Transaction History**.
2. Select the endpoint whose YUM history you want to view.
3. Select the transaction that you want to redo.
4. Click **Redo**.
5. In the **Redo Transaction** window, click **Apply**.
6. From the **Take Action** window, select the computer and click **OK** to run the action.

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