BigFix Patch Management

for Red Hat Enterprise Linux

User's Guide

July, 2010

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All inquiries regarding the foregoing should be addressed to:

BigFix, Inc.
1480 64th Street, Suite 200
Emeryville, California 94608

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Part 1

Getting Started

Introduction

BigFix Patch Management for Red Hat Enterprise Linux keeps your Linux Clients current with the latest updates and service packs from Red Hat and other third party suppliers. Patch management is available through the *Patches for Red Hat Enterprise Linux* Fixlet site from BigFix. For each new patch or update that becomes available, BigFix releases a Fixlet message 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 OS 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 message in its lab before it is released. This often turns up issues that are dealt with by attaching extra notes to the Fixlet message. These notes typically allow the Console Operator to work around the problem, adding extra value to the patching process. BigFix also incorporates user feedback into notes, ensuring that you are in receipt of the latest information.

Fixlet messages allow you to manage large numbers of updates and patches with comparative ease, enabling automated, highly targeted deployment on any schedule you desire. 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

BigFix provides Red Hat Security Advisories, Fix Advisories, and Enhancement Advisories on the following platforms:

- Red Hat Enterprise Linux 5
- Red Hat Enterprise Linux 4
- Red Hat Enterprise Linux 3

Navigating Patch Management in the BigFix Console

The navigation tree in the BigFix Console, which is available for all BigFix products, will serve as your central command for all Patch Management functionality. The navigation tree gives you easy access to all reports, wizards, Fixlet messages, analyses and tasks related to the available updates and service packs for the computers in your network.

The content in the Patch Management “domain” is organized into two separate “sites” – *Application Vendors* and *OS Vendors*.

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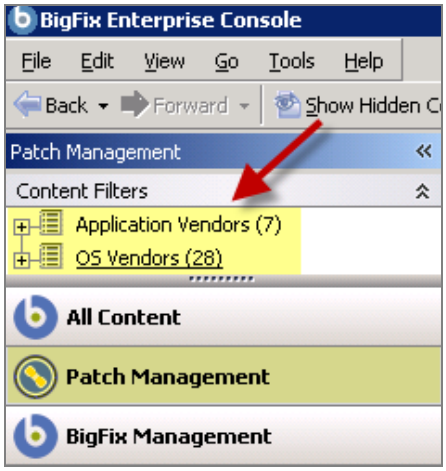

Components

The BigFix Console organizes content into four parts:

- *Domain Panel – Includes navigation tree and list of all domains*
- *Navigation Tree – Includes list of nodes and sub-nodes containing site content*
- *List Panel – Contains listing of tasks and Fixlets*
- *Work Area – Work window where Fixlet and dialogs display*

In the context of the BigFix Console, products or *sites* are grouped by categories or *domains*. The domain panel is the area on the left side of the Console that includes a navigation tree and a list of all domains. The navigation tree includes a list of nodes and sub-nodes containing site content.

In the image below, the red-outlined area represents the entire Domain Panel, and the blue box contains just the Navigation Tree. You will note that the Patch Management domain button is listed at the bottom – you will use this domain to access Patch Management content.

The Patch Management navigation tree includes three primary “nodes” that each expand to reveal additional content. The top two nodes – *Application Vendors* and *OS Vendors*, expand to include Fixlets, tasks and other content related specifically to either applications or OSs. The third node – *All Patch Management,* expands to include content that is collectively related to the entire Patch Management domain.

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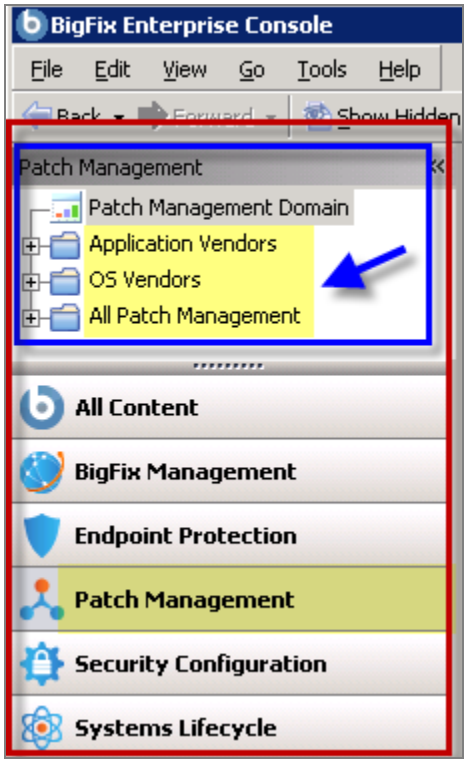

Patch Management tasks are sorted through upper and lower task windows, which are located on the right side of the Console. The upper panel, called the *List Panel* (blue), contains columns that sort data according to type, such as Name, Source Severity, Site, Applicable Computer Count, etc.

The lower panel or *Work Area* (red) presents the Fixlet message, task screen or Wizard from which you will be directed to take specific actions to customize the content in your deployment.

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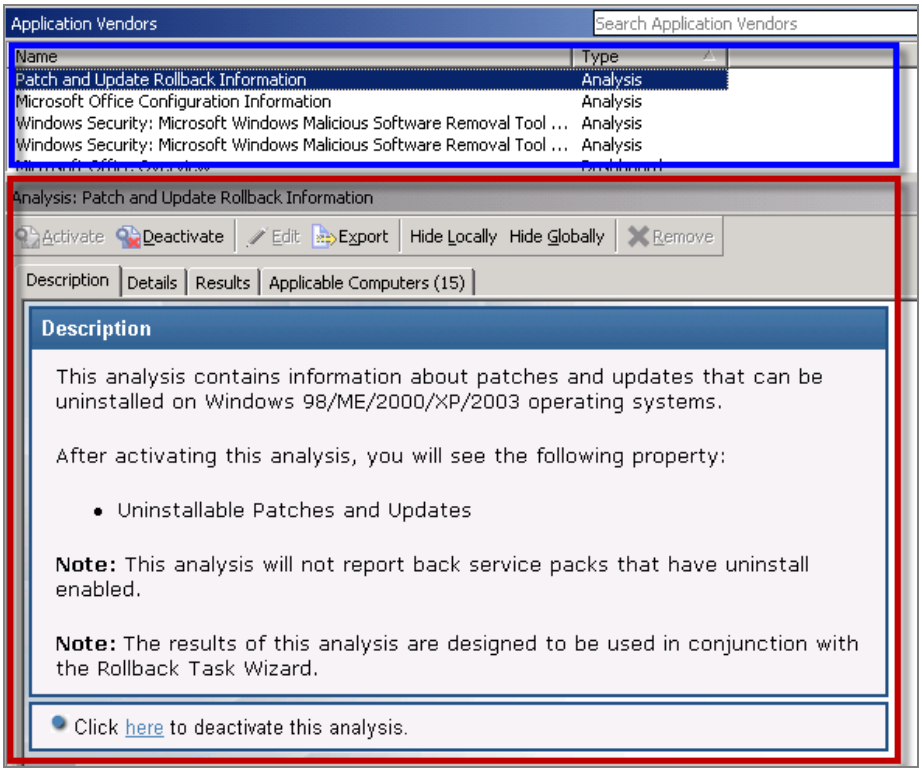
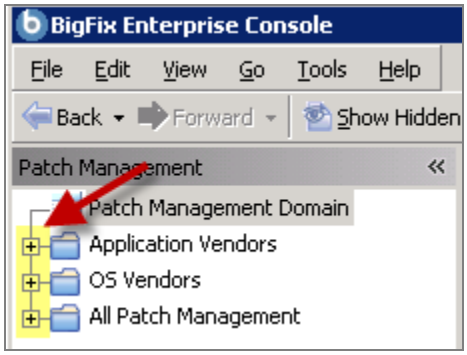


Working with Content

The navigation tree organizes Patch Management content into expandable and collapsible folders that enable you to easily navigate and manage relevant components in your deployment.

When you click on the Patch Management “domain” at the bottom of your screen, you will see the accompanying Patch Management “sites” organized into expandable nodes – Application Vendors and OS Vendors. Click the “+” to display the content related to either application or OS vendors within Patch Management.

The *All Patch Management* node includes content related to the entire Patch Management “domain” as a whole, which collectively includes of the sites within this domain.



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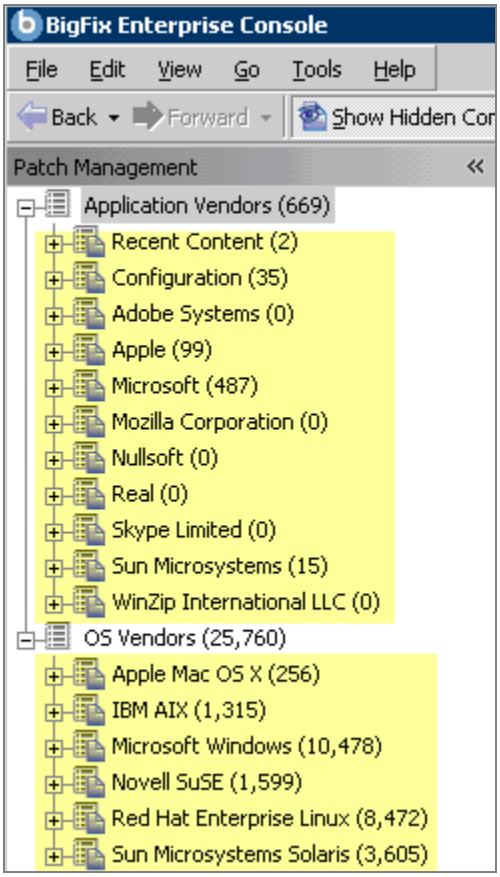
> **Note:** Depending on your operating system, your system may display the "+" and "-" buttons in the navigation tree as triangles. Specifically, the "+" and "-" icons will display on Windows XP/2003/2008/2008R2 machines, and triangles will display on Windows Vista/7. This feature was designed so that the Console matches the standards and conventions of your specific operating system. Regardless of the particular icon, the functionality of these buttons works the same way to either expand or collapse content.

You will use this same expand/collapse method to move through the entire navigation tree. Click each "+" to display each piece of related application or OS Patch Management content.



You can see that the *Application Vendors* site is organized into 11 primary "nodes" – Recent Content, Configuration, Adobe Systems, Apple, Microsoft, Mozilla Corporation, Nullsoft, Real, Skype Limited, Sun Microsystems, and WinZip International LLC.

Each of these nodes expands into sub-nodes that contain additional content:

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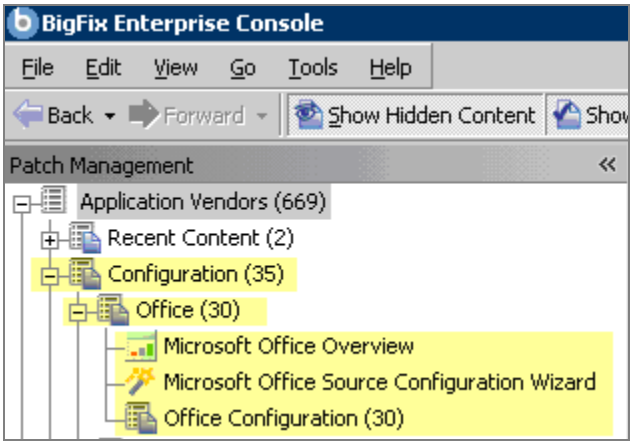
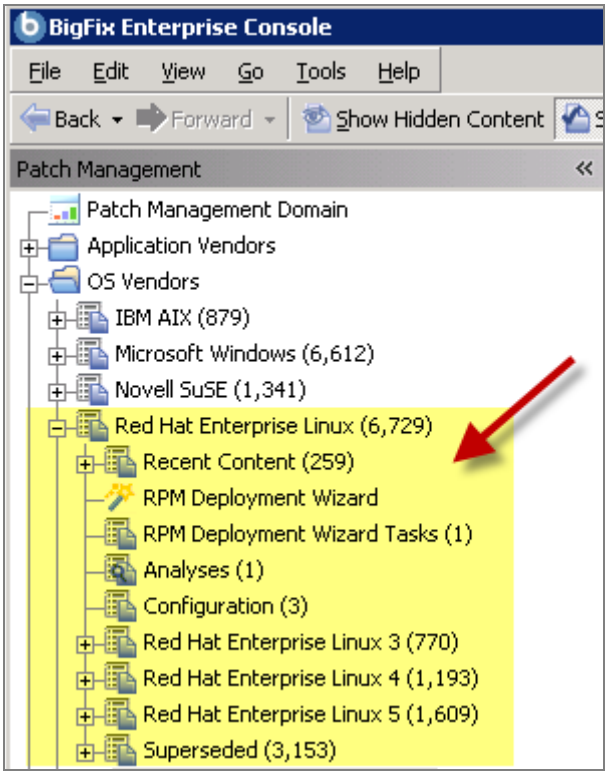


Use the same approach of clicking the "+" and "-" to open and close each node and sub-node.

For Red Hat patches, you will primarily be using the content contained in the *Red Hat Enterprise Linux* node under the OS Vendors site in the navigation tree.



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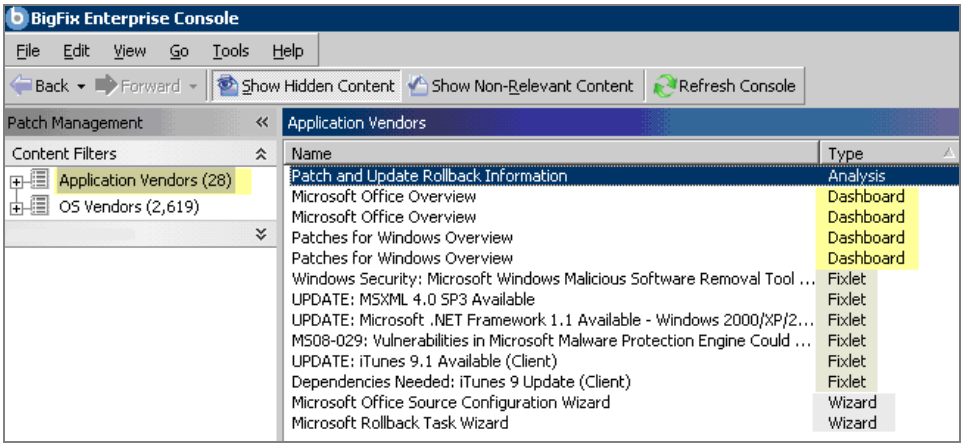
Composite View

For an overall view of all Patch Management content, click either *Application Vendors* or *OS Vendors* at the top of the navigation tree. This will display all content organized by "type".

- Analyses
- Dashboards (includes Overview reports and Tasks)
- Fixlets
- Wizards



This content represents actions that need to be addressed so that Patch Management *for Red Hat Enterprise Linux* can display the most accurate and up to date information about security patches and updates for the systems in your deployment.

All Patch Management

The All Patch Management part of the navigation tree contains content relevant to all of the products contained within the Patch Management "domain". From this view, you can see a composite picture of the Fixlet messages and tasks, analyses, baselines, computer groups and sites related to those BigFix products. This content is visible through expandable and collapsible menus.

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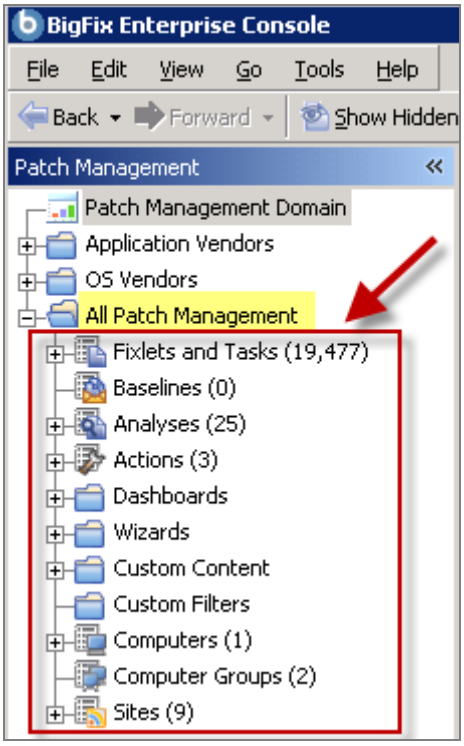

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Part 2

Patch Management

Patches need to be cached on your BES Server deployment. To ease the process of caching, Fixlets have incorporated a protocol that invokes download plugins. Download plug-ins are executables that, based on the user's configuration, log on to the patch vendor's website and download the specified patch. For the Fixlet to recognize the protocol, the download plug-in for the protocol must be registered. After the plugin is registered, simply running the Fixlets will download, cache, and deploy the patches.

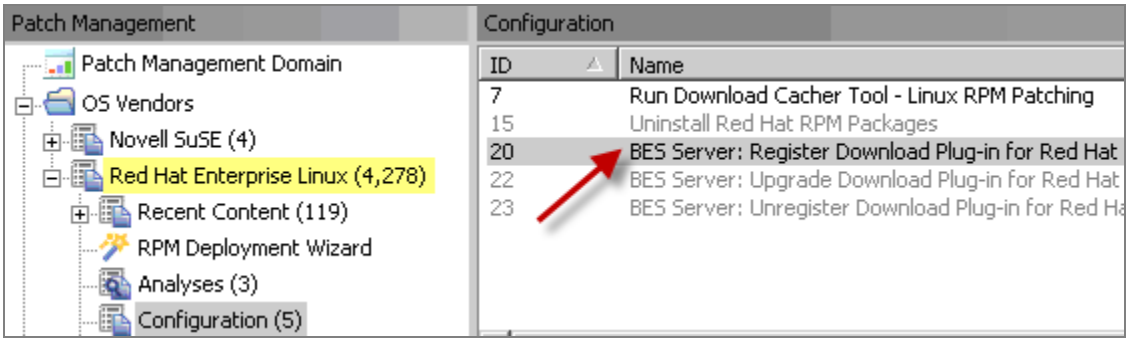
To deploy patches from the BigFix Console, register a download plug-in and then run the appropriate patch Fixlets. This process is detailed in the sections below.

Registering a Download Plug-in

To register a download plug-in for Red Hat Enterprise Linux, you will run the task *Register Download Plug-in for Red Hat Enterprise Linux*.

Running the *Register Download Plug-in* Task

In the navigation tree of the Patch Management domain, expand the *OS Vendors* node. Next, expand the *Red Hat Enterprise Linux* node, and select the *Configuration* sub-node. In the List Panel, select the task *BES Server: Register Download Plug-in for Red Hat Enterprise Linux*.



In the work area, select the link to install the *Red Hat Download Plug-in* in the Actions box. You will be prompted with the following action parameters:

Required Parameters

Red Hat Username

Your Red Hat Network account username
(used to log into https://www.redhat.com/wapps/sso/login.html)

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Red Hat Network Password

Your Red Hat Network account password
(used to log into https://www.redhat.com/wapps/sso/login.html)

Optional Parameters

PROXY Proxy URL Proxy Username Proxy Password

Enter proxy parameters if the downloads must go through a proxy server. If your network requires a proxy server for Internet access, you must specify the required parameters.

Proxy URL is the URL of your proxy server. This is usually the IP address or DNS name of your proxy server, and its port, separated by a colon (for example: http://192.168.100.10:8080).

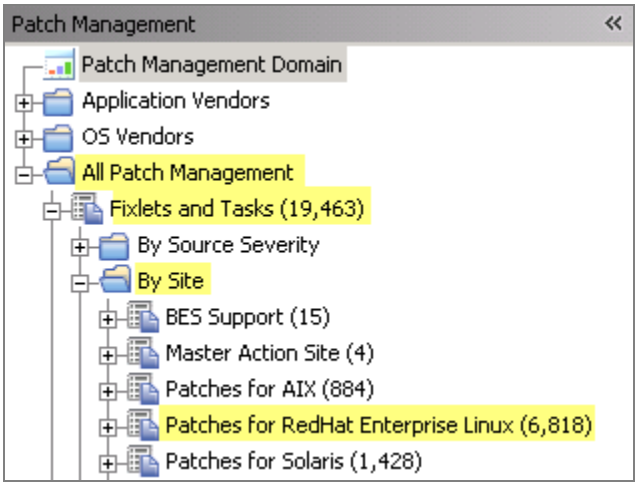
If your proxy server requires authentication, you must specify your **Proxy Username** and **Proxy Password**. Your Proxy Username is usually in the form of domain\username.

After you have entered all parameters, select the server or relay with which you will register the plug-in and click *OK*. Finally, authenticate your action. The plug-in should now be registered.

Patching Using Fixlet Messages

To deploy patches from the BigFix Console:

In the *All Patch Management* node in the Navigation Tree, click *Fixlets and Tasks, By Site,* and click *Patches for Red Hat Enterprise Linux.*



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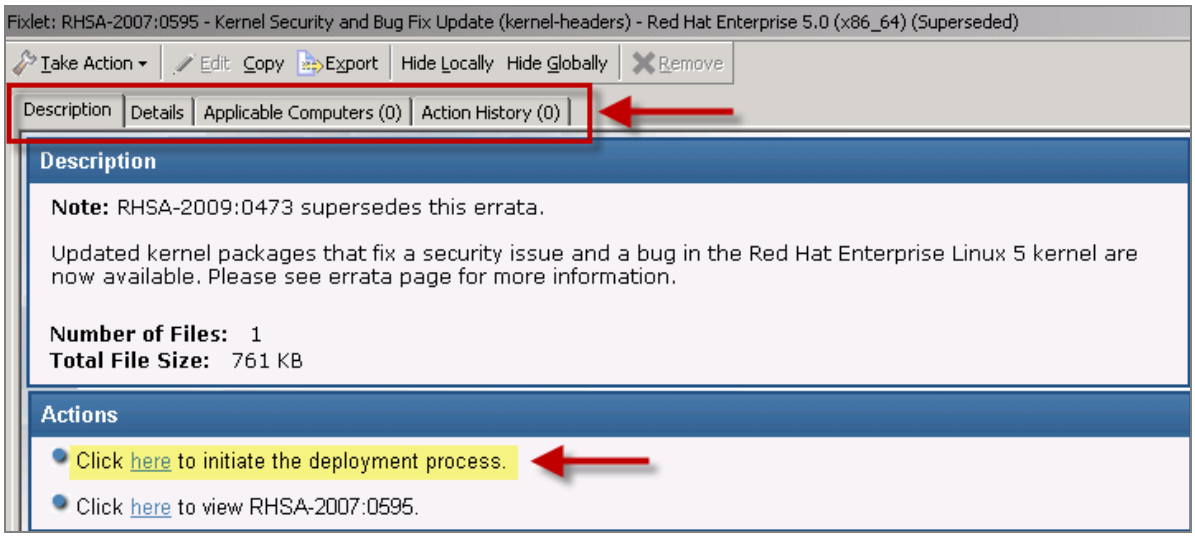
Double-click on the Fixlet message you want to deploy. Click on the tabs at the top of the Fixlet message window to review additional details, and then click the appropriate link in the Actions box to initiate deployment. Click *OK* and enter your Private Key Password.



Dependency Issues

For some updates, audit Fixlet messages with the title “Dependencies Needed” or “Dependency Conflicts” will become relevant. In this case, you will need to solve the dependency issue(s) manually or use the RPM Deployment Wizard before applying remediation Fixlet messages. There are three types of dependency issues:

- **Missing RPM(s)**: Users need to install any version of the required package(s), otherwise the update will not install.
- **Required RPM(s) out of date**: Users need to update the RPM(s) to the required version in order to install the update.
- **Conflict between installed RPM(s) and RPM(s) to be installed**: Users need either to remove conflicting RPM(s) or upgrade them to certain versions.

Using the RPM Deployment Wizard

Once you have downloaded an RPM, you can use the Wizard to facilitate deployment. In the Content Filters part of the Navigation Tree, click *OS Vendors, Red Hat Enterprise Linux,* and then *RPM Deployment Wizard.*

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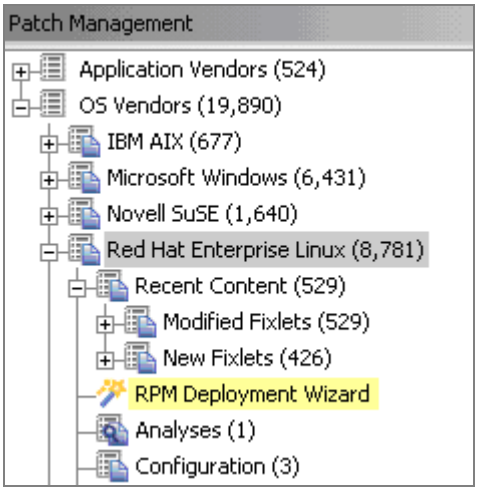
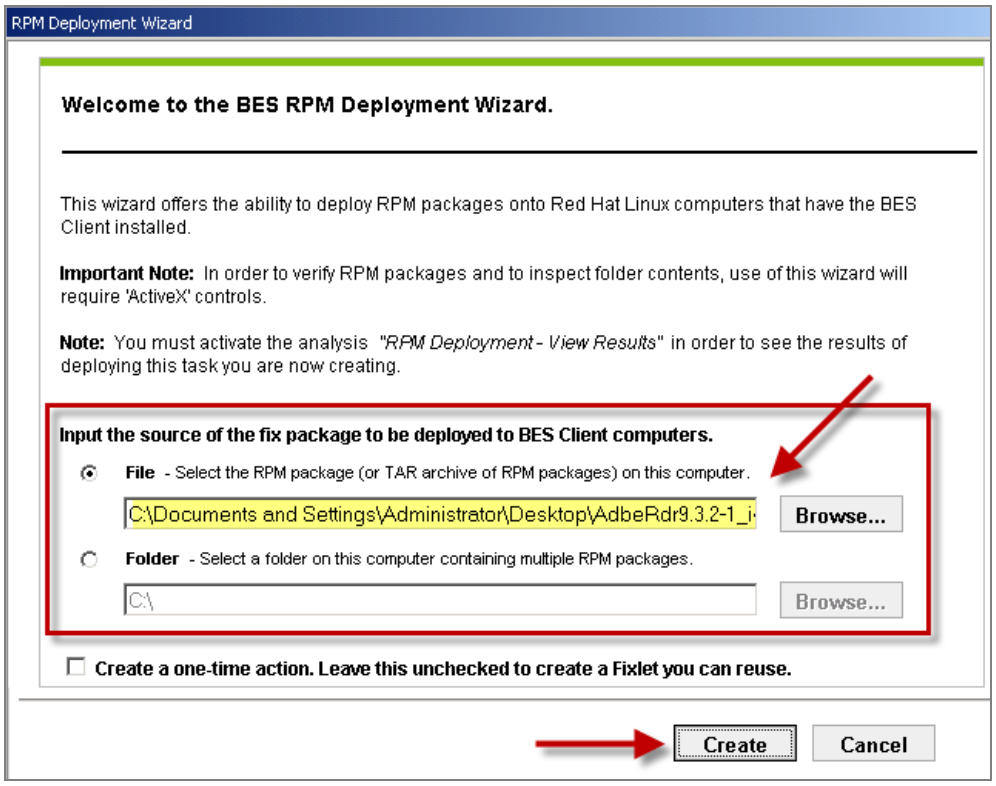


When the Wizard opens, enter the RPM package you wish to deploy.



Click the checkbox if you'd like to create a one-time action, or leave blank to create a Fixlet you can reuse. When complete, click *Create.* You will see the following progress screen:

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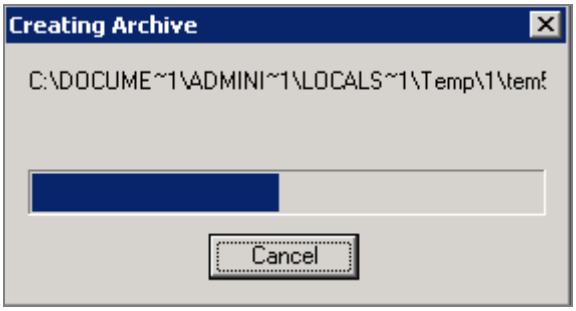
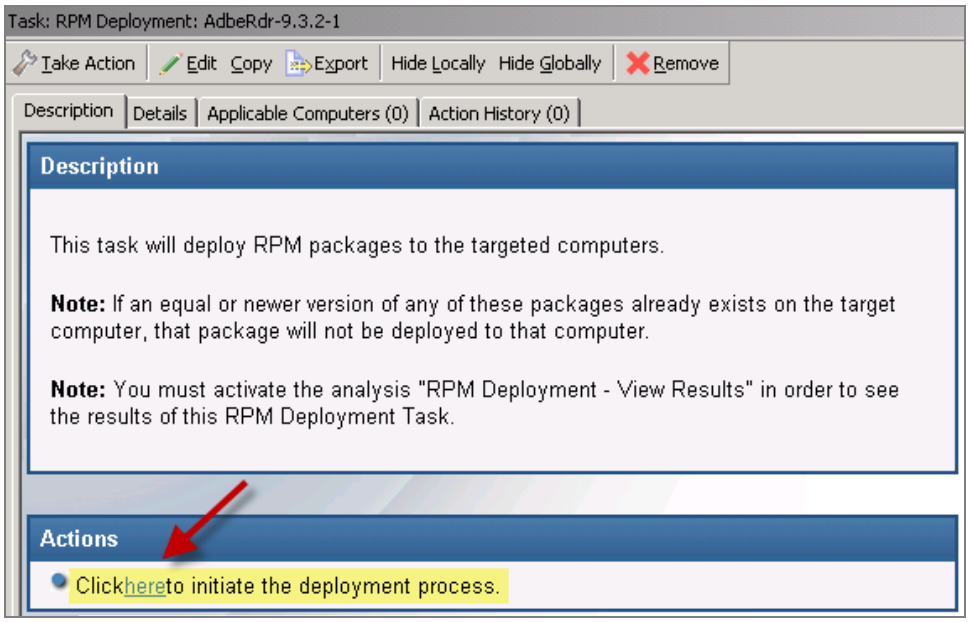


When the first Task window appears, click *OK* and enter your Private Key Password. Then click in the Actions box to initiate deployment.



When the Take Action dialog opens, use the tabs across the top of the window to set parameters for this Action. Then click *OK* and enter your Private Key Password. The Wizard will deploy this action to your clients.

Uninstalling Red Hat Linux Patches

BigFix provides a Task to uninstall Red Hat RPM packages. Rather than a rollback, this Task specifically removes RPMs.

> Note: This Task will not uninstall a package if another installed package depends on the package you are trying to remove.

Click on *OS Vendors* in the Navigation Tree, and then select *Red Hat Enterprise Linux.* You should see the *Uninstall Red Hat RPM Packages* patch in the List Panel on the right.

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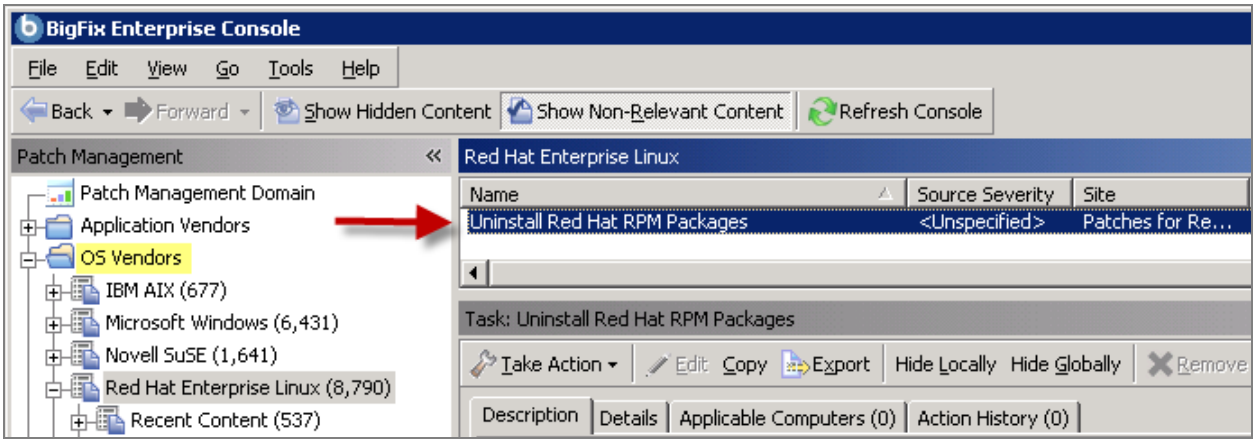
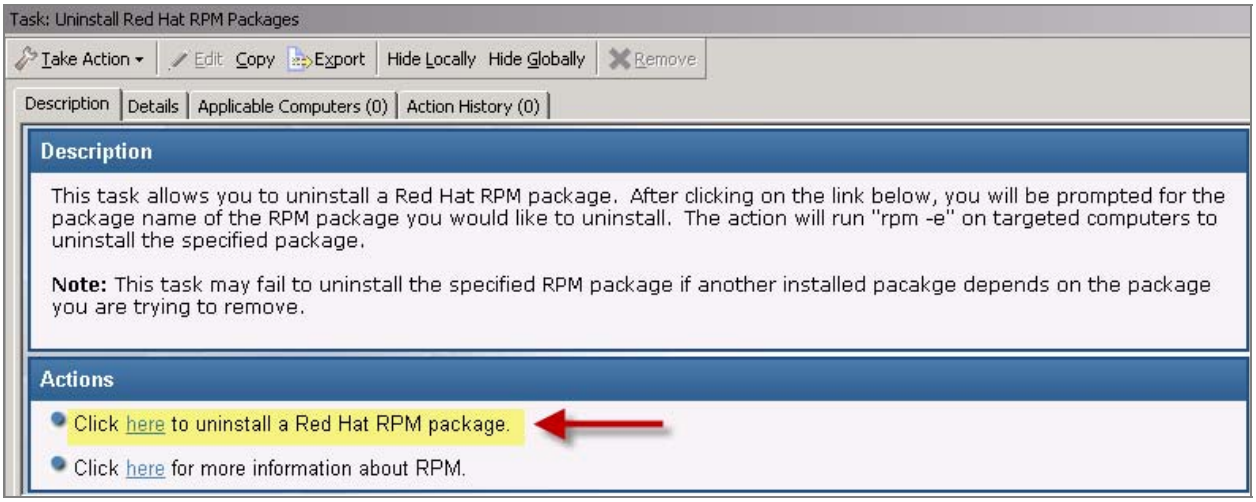


Double-click this Task to open the dialog, and then click in the Actions box to initiate the action.



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Part 3

Support

Frequently Asked Questions

The following are a list of Frequently Asked Questions. If you have a question about this product and don't see your question below, see the Global Support section of this document for a list of available resources.

Where are my dashboards located in the new version of the BigFix Console?

The updated BigFix Console contains all of the same content as the previous version, though some content may have moved to a different location.

Expand the *OS Vendors* node in the navigation tree and then click *Microsoft Office* and *Reports* to view the *Microsoft Office Overview* and the *Patches for Windows Overview* dashboards. The *Microsoft Rollback Wizard* is located under the *Configuration* node of the OS Vendors site.

Why does a patch fail, but complete successfully?

Sometimes under very specific circumstances, a patch will successfully apply but the relevance conditions will indicate that it is still needed. Check to see if there are any special circumstances associated with the patch, or contact Support.

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

If a patch fails to install, there are several things you can try: Determine if you have applied the patch to the correct computers, try running the patch manually by downloading it from the Microsoft website, review Windows updates, and look at the Microsoft Baseline Security Analyzer (MBSA) to see if that tool believes the patch is applicable.

Why is there no default action?

There are a variety of reasons for this. Sometimes a Fixlet message or a patch could have catastrophic consequences. It is recommended that you test on a testbed before applying the Fixlet or patch. There also could be multiple actions with the Fixlet, none of which are clearly recommended over other actions. *It is highly recommended that you read the Description text in the Fixlet message before initiating the action.*

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What does "*Manual Caching Required*" mean?

For whatever reason, a particular vendor may not be providing a download directly to their link. You will then need to click through a EULA and manually download it to your BES server.

What are Corrupt Patches and how are they used?

Corrupt patches in Windows are when BigFix detects that a patch looks like it began running but didn't complete. These patches become relevant to indicate that something is wrong with the security patch. To remediate, take the appropriate action that will reapply the patch.

What are superseded patches?

Superseded patches are older versions of patches that no longer need to be applied.

How do I deal with missing patches?

BigFix does not provide every single patch that Microsoft offers. We provide Microsoft security patches on Patch Tuesdays, as well as some hotfixes associated with Security Packs.

Global Support

BigFix offers a suite of support options to help optimize your user-experience and success with this product. Here's how it works:

- First, check the BigFix website Documentation page
- Next, search the BigFix Knowledge Base for applicable articles on your topic
- Then check the User Forum for discussion threads and community-based support

If you still can't find the answer you need, contact BigFix's support team for technical assistance:

- Phone/US: 866 752-6208 (United States)
- Phone/International: 661 367-2202 (International)
- Email: enterprisesupport@bigfix.com

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