

Tivoli. *Patch Management
for Red Hat Enterprise Linux*

User's Guide





Note: Before using this information and the product it supports, read the information in Notices.

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Part One

Introduction

BigFix Patch Management for Red Hat Enterprise Linux keeps your Linux Clients current with the latest updates and service packs. 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 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 lab before it is released. This 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 also incorporates 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 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

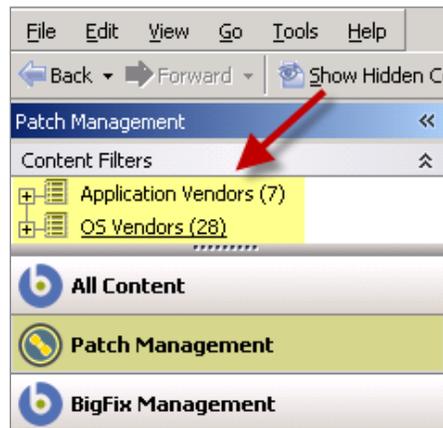
BigFix provides Red Hat Security Advisories, Fix Advisories, and Enhancement Advisories on the following platforms:

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

Navigate Patch in the BigFix console

The navigation tree in the BigFix Console, which is available for all BigFix products, serves as your central command for all Patch Management functions. The navigation tree gives you easy access to all reports, wizards, Fixlets, 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*.



Components

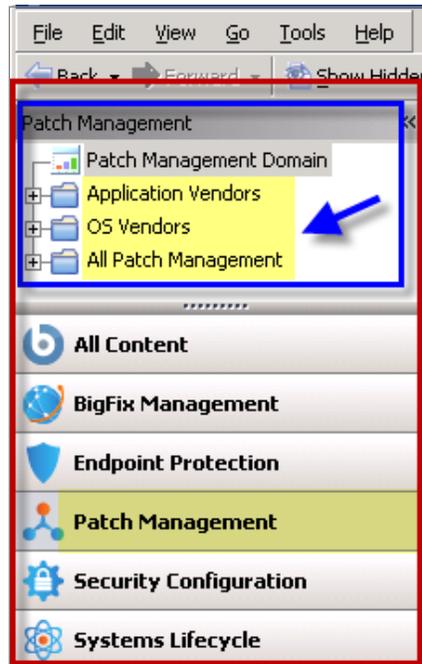
The BigFix Console organizes content into four parts:

- *Domain Panel* – Includes a navigation tree and list of all domains
- *Navigation Tree* – Includes a list of nodes and subnodes containing site content
- *List Panel* – Contains a list 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.

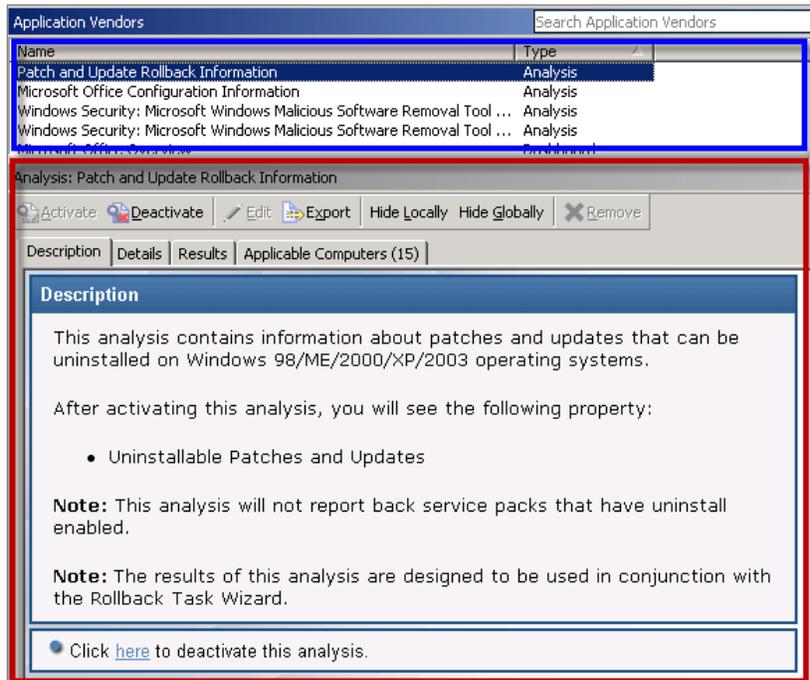
In the image below, the red-outlined area represents the entire Domain Panel, and the blue box contains just the Navigation Tree. The Patch Management domain button is listed at the bottom. Use this domain to access Patch Management content.

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 operating systems. The third node – *All Patch Management*, expands to include content that is collectively related to the entire Patch Management domain.



Patch Management tasks are sorted through upper and lower task windows, 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, and so on.

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

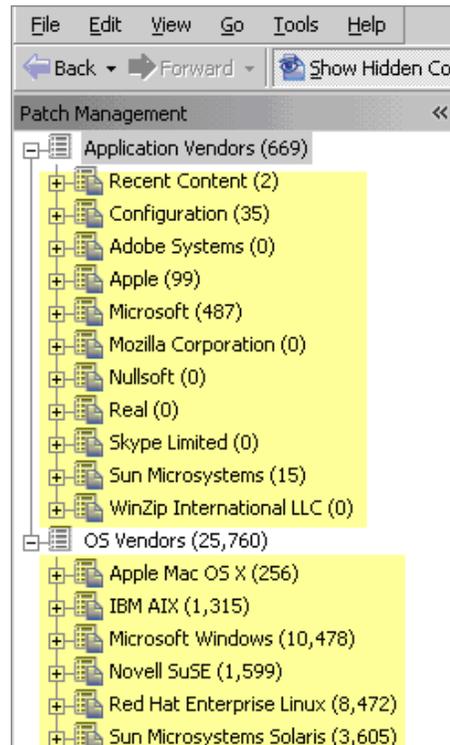
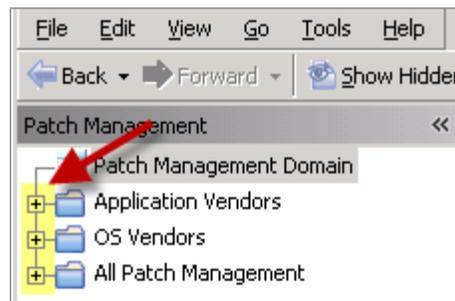


Working with content

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

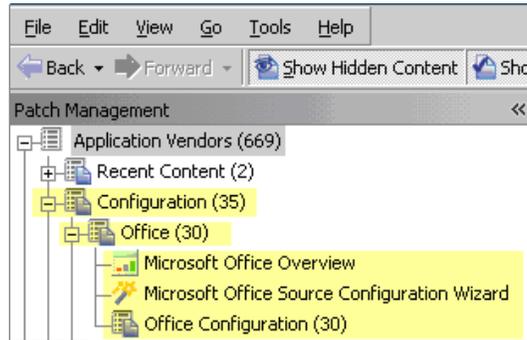
When you click the Patch Management “domain” at the bottom of your screen, you see the accompanying Patch Management “sites” organized into expandable nodes – Application Vendors and OS Vendors. Click the “+” to display the content related to either application or OS vendors within Patch Management.

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.



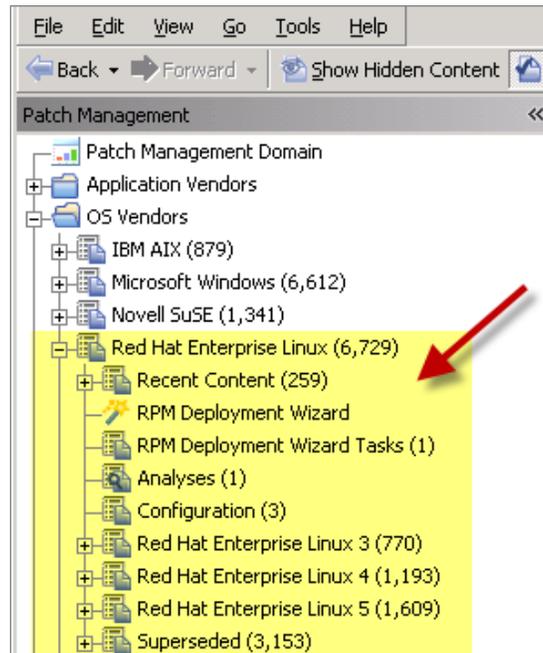
The *Application Vendors* site is organized into 11 primary “nodes” – Recent Content, Configuration, Adobe Systems, Apple, Microsoft, Mozilla Corporation, Nullsoft, Real, Skype Limited, Sun Microsystems, and WinZip International LLC.

Each node expands into subnodes that contain additional content:



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

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



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 displays all content organized by “type”.

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

Patch Management		Application Vendors	
Content Filters		Name	Type
Application Vendors (28)		Patch and Update Rollback Information	Analysis
OS Vendors (2,619)		Microsoft Office Overview	Dashboard
		Microsoft Office Overview	Dashboard
		Patches for Windows Overview	Dashboard
		Patches for Windows Overview	Dashboard
		Windows Security: Microsoft Windows Malicious Software Removal Tool ...	Fixlet
		UPDATE: MSXML 4.0 SP3 Available	Fixlet
		UPDATE: Microsoft .NET Framework 1.1 Available - Windows 2000/XP/2...	Fixlet
		MS08-029: Vulnerabilities in Microsoft Malware Protection Engine Could ...	Fixlet
		UPDATE: iTunes 9.1 Available (Client)	Fixlet
		Dependencies Needed: iTunes 9 Update (Client)	Fixlet
		Microsoft Office Source Configuration Wizard	Wizard
		Microsoft Rollback Task Wizard	Wizard

This content represents actions that must be addressed to have Patch Management *for Windows* display the most accurate 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 Fixlets and tasks, analyses, baselines, computer groups and sites related to those BigFix products. This content is visible through expandable and collapsible menus.

Patch Management	
Patch Management Domain	
Application Vendors	
OS Vendors	
All Patch Management	
Fixlets and Tasks (19,477)	
Baselines (0)	
Analyses (25)	
Actions (3)	
Dashboards	
Wizards	
Custom Content	
Custom Filters	
Computers (1)	
Computer Groups (2)	
Sites (9)	

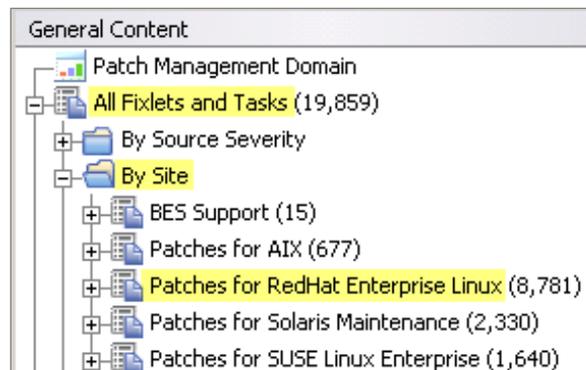
Part Two

Patch Management for Red Hat Linux

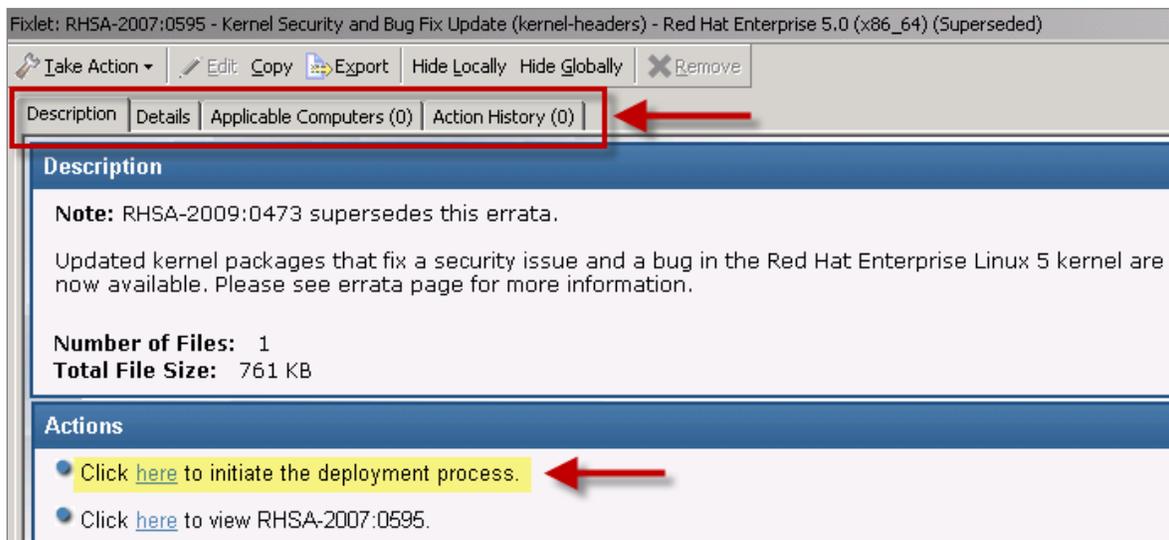
Patch using Fixlets

To deploy patches from the BigFix Console:

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



Double-click the Fixlet that you want to deploy. Click the tabs at the top of the Fixlet 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.

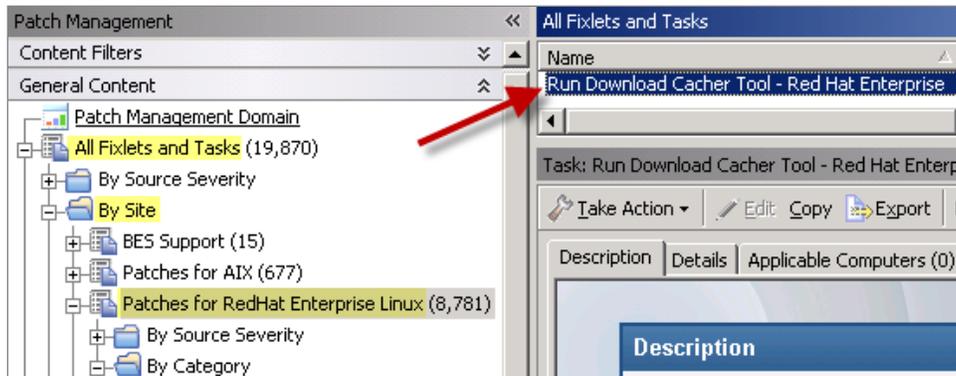


Use the Download Cacher

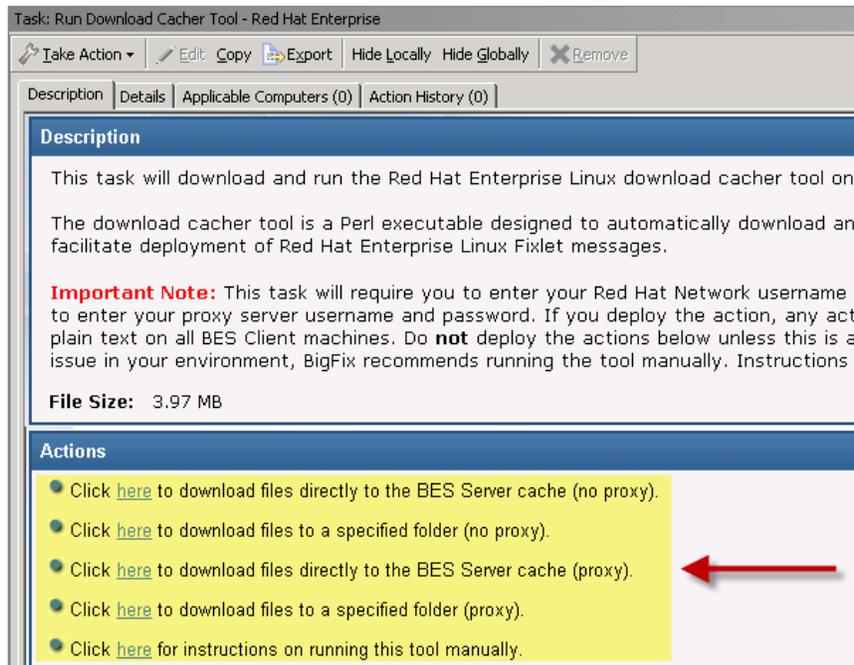
The Download Cacher automatically downloads and caches Red Hat RPM packages to facilitate deployment of Red Hat Enterprise Linux Fixlets.

Run the Download Cacher task

BigFix provides a Task for running the Download Cacher Tool for Red Hat Enterprise Linux. In the General Content part of the Navigation Tree, click *All Fixlets and Tasks, By Site, and Patches for Red Hat Enterprise Linux*. View the *Run Download Cacher Tool – Red Hat Enterprise Linux* in the List Panel on the right.

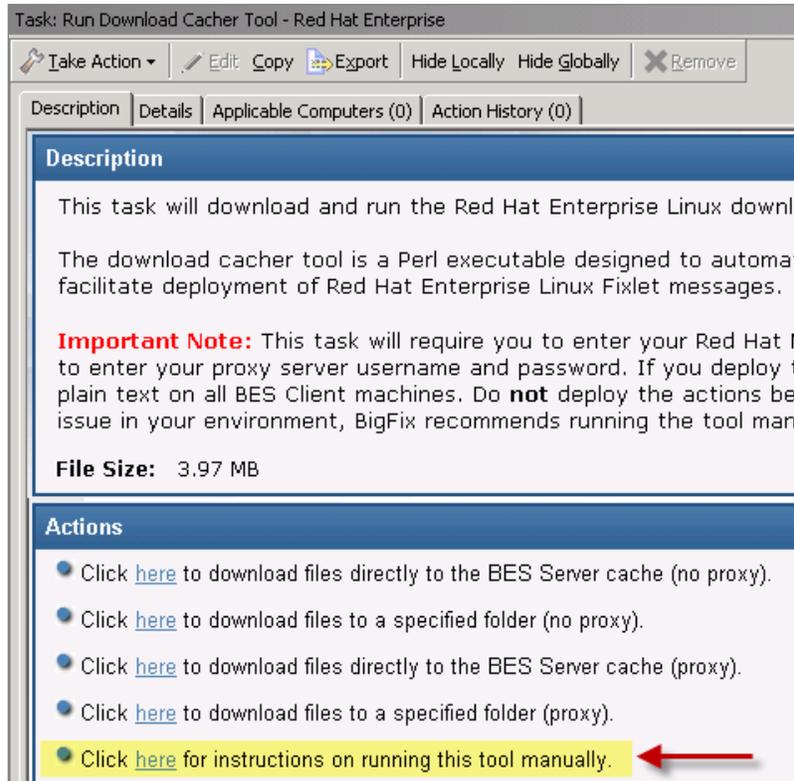


When the Task window opens, select the appropriate link in the Actions box to download the tool.



Run the Download Cacher manually

For manual download caching, click the bottom link in the Actions box from the Task window:



This takes you to a [BigFix Knowledge Base article](#) outlining specific download instructions.

Note: *If you run the tool without specifying any parameters, you will be prompted to enter the parameters at the command line.*

Dependency Issues

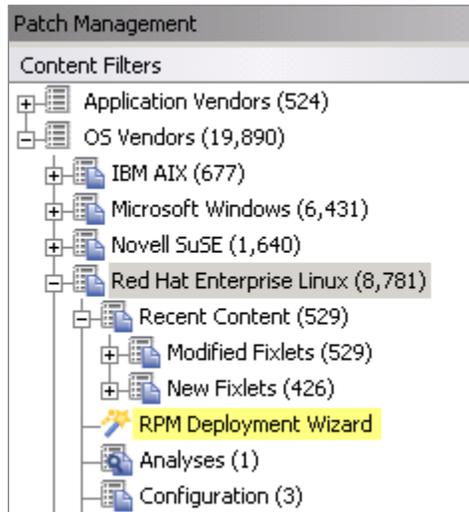
For some updates, audit Fixlets with the title "Dependencies Needed" or "Dependency Conflicts" become relevant. In this case, you must resolve any dependency issues manually or use the RPM Deployment Wizard before applying remediation Fixlets. There are three types of dependency issues:

- **Missing RPM(s):** Users need to install any version of the required package(s), otherwise the update does not install.
- **Required RPM(s) out of date:** Users need to update the RPMs to the required version to install the update.

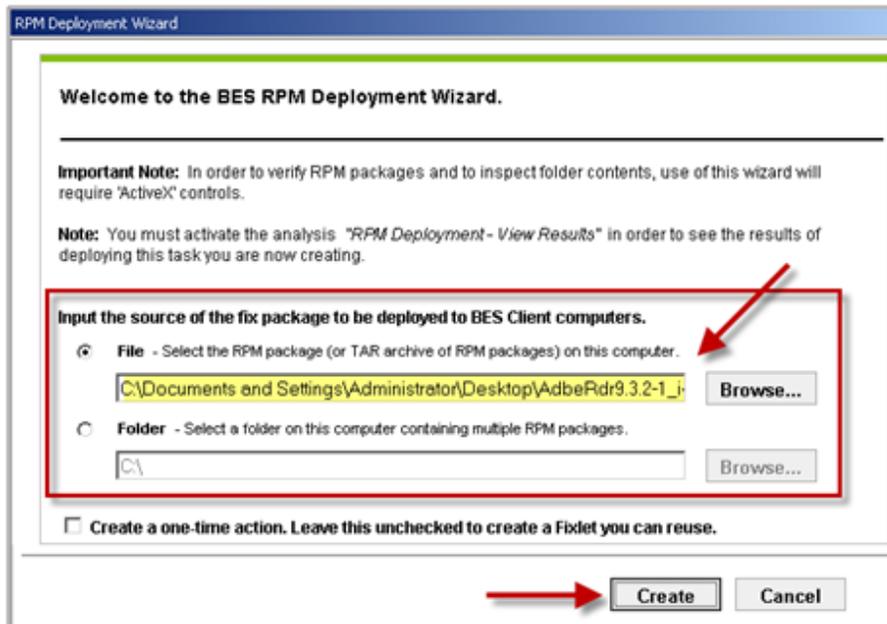
- **Conflict between installed RPMs and RPMs to be installed:** Users need either to remove conflicting RPM(s) or upgrade them to specific versions.

Use the RPM Deployment Wizard

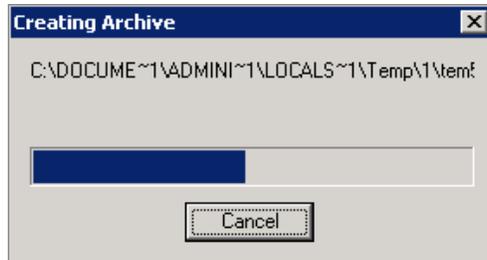
After you have downloaded an RPM, you can use the Wizard to facilitate deployment. In the Content Filters part of the Navigation Tree, click *OS Vendors*, *Red Hat Enterprise Linux*, and then *RPM Deployment Wizard*.



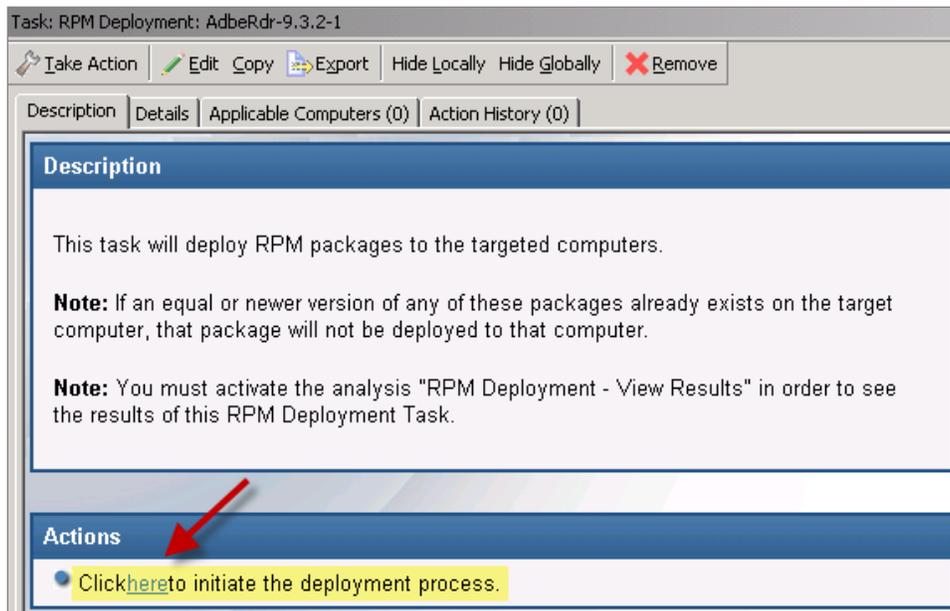
When the Wizard opens, enter the RPM package that you want to deploy.



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



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



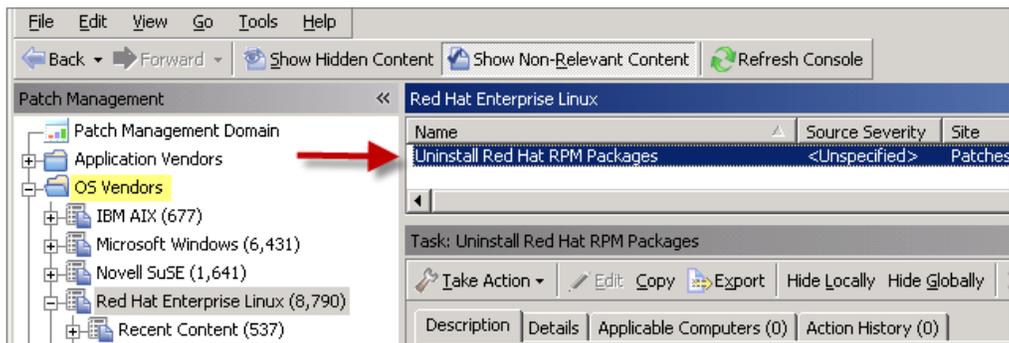
When the Take Action dialog opens, use the tabs across the top of the window to set parameters for this Action. Click *OK* and enter your Private Key Password. The Wizard deploys this action to your clients.

Uninstall Red Hat Linux Patches

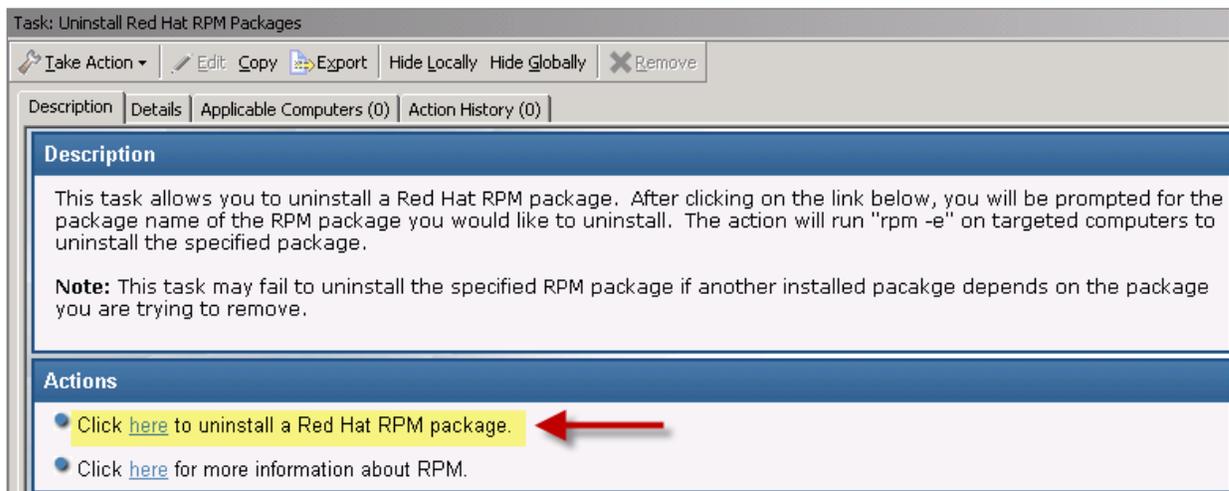
BigFix provides a task to uninstall Red Hat RPM packages. Rather than a rollback, this task specifically removes RPMs.

Note: *This task does not uninstall a package if another installed package depends on the package that you are trying to remove.*

Click *OS Vendors* in the navigation tree and select *Red Hat Enterprise Linux*. You see the *Uninstall Red Hat RPM Packages* patch in the List Panel on the right.



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



Frequently Asked Questions

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 might 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 is successfully applied but the relevance conditions indicate that it is still needed. Check to see if there are any special circumstances associated with the patch, or contact IBM Software 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 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 before initiating the action.*

What does “Manual Caching Required” mean?

For whatever reason, a particular vendor might not be providing a download directly to their link. In this case, click through that vendor’s End User License Agreement 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 did not complete. These patches become relevant to indicate that something is wrong with the security patch. To remediate, take the appropriate action to reapply the patch.

What are superseded patches?

Supersede 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 offer; it provides Microsoft security patches on Patch Tuesdays, as well as some hotfixes associated with Security Packs.

Technical Support

The BigFix technical support site offers a number of specialized support options to help you learn, understand, and optimize your use of this product:

- [BigFix Support Site](#)
- [Documentation](#)
- [Knowledge Base](#)
- [Forums and Communities](#)



Part Four

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