BigFix Patch Management

for AIX

User's Guide

July, 2010

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Part 1

Getting Started

Introduction

BigFix has provided highly scalable, multi-platform, automated patch management solutions since 1997. Today, over six million computers around the globe rely on the BigFix Unified Management Platform to deploy critical updates to workstations, servers and other devices, regardless of location, running a wide variety of operating systems and applications. BigFix deploys in days—not months—enabling our customers to realize business value by meeting compliance requirements, reducing organizational risk and containing costs.

BigFix leads the patch management market in terms of breadth of coverage, speed, automation and cost effectiveness of our solution, providing comprehensive operating system and third-party application patches. The solution, which includes deploying a multi-purpose, lightweight BigFix Agent to all endpoint devices, supports a wide variety of device types ranging from workstations and servers to mobile and point-of-sale (POS) devices.

Supported Versions

The Patches for AIX Fixlet site provides Fixlet messages for the latest Maintenance Level packages for AIX 5.1, 5.2 and 5.3. It also includes inventory-only Fixlet messages for AIX Security Advisories, Critical Fixes, High Impact/Highly Pervasive Fixes and PTFs in Error released since the last Maintenance Level Package update.

In addition, the Patches for AIX Fixlet site contains Task messages you can use to compare the patch level of a machine with the most currently available fixes from IBM. You can view your results in the BigFix Console once the appropriate Analysis has been activated.

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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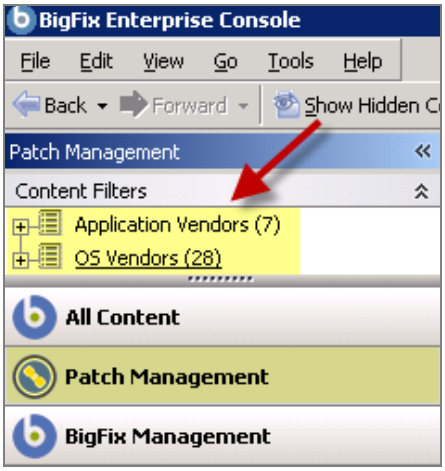

Components

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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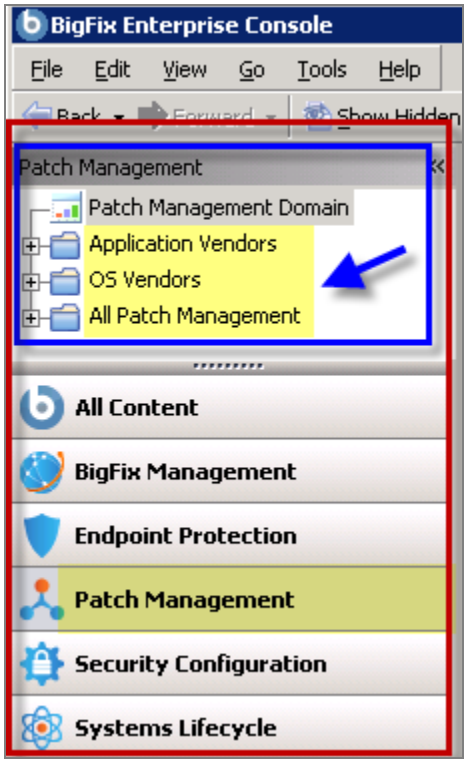

Patch Management tasks are sorted through upper and lower task windows, located on the right side of the Console. The upper panel, called the *List Panel* (blue), contains columns that sort data according to type, such as Name, Source Severity, Site, Applicable Computer Count, etc.

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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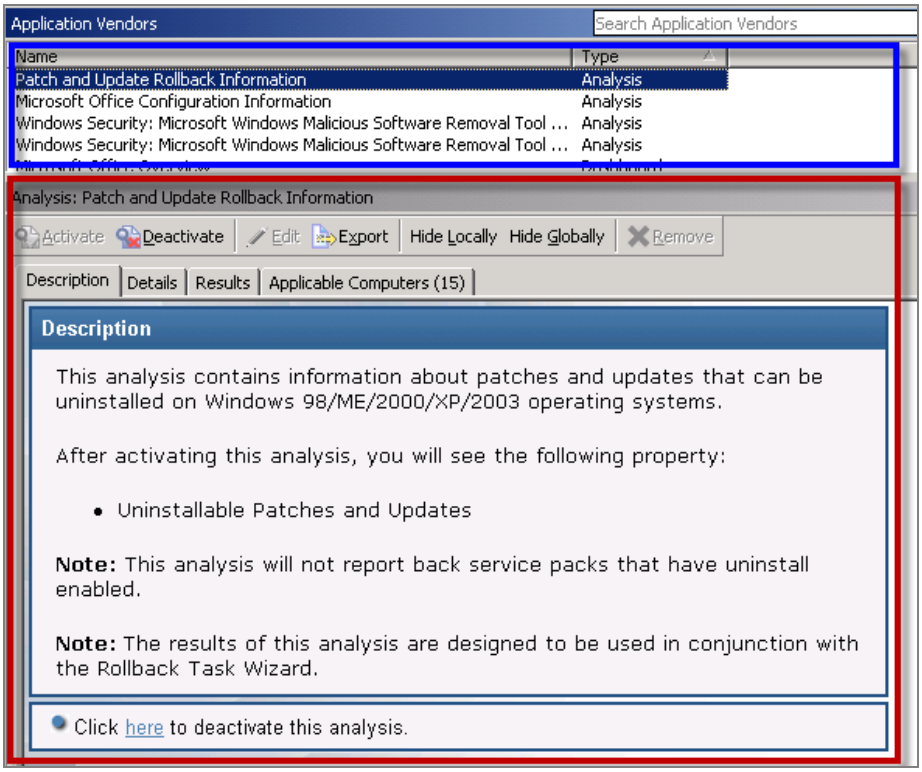
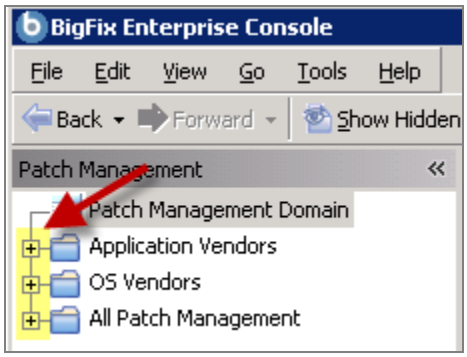


Working with Content

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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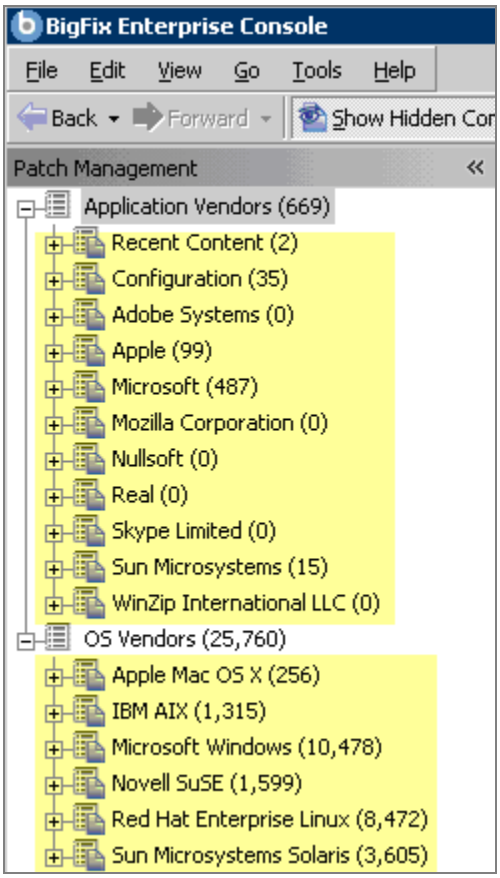
> **Note:** Depending on your operating system, your system may display the "+" and "-" buttons in the navigation tree as triangles. Specifically, the "+" and "-" icons will display on Windows XP/2003/2008/2008R2 machines, and triangles will display on Windows Vista/7. This feature was designed so that 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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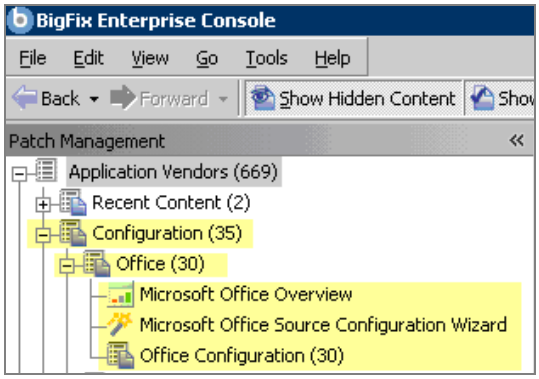
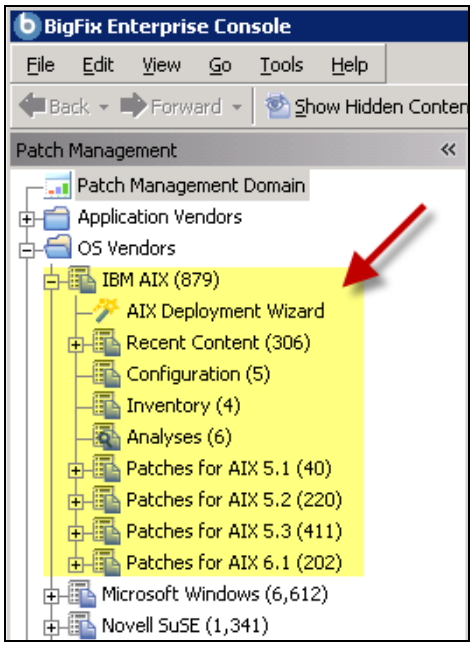


Use the same approach of clicking the "+" and "-" to open and close each node and sub-node.

For AIX patches, you will primarily be using the content contained in the *IBM AIX* 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 will display all content organized by "type".

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

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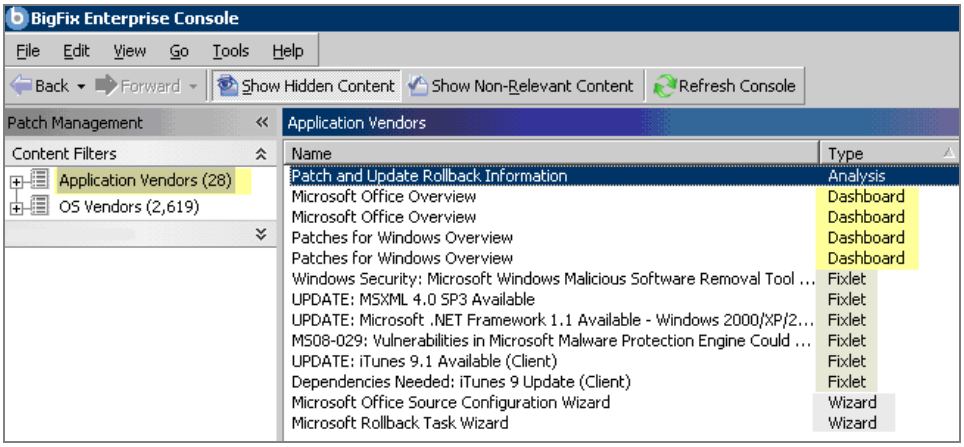
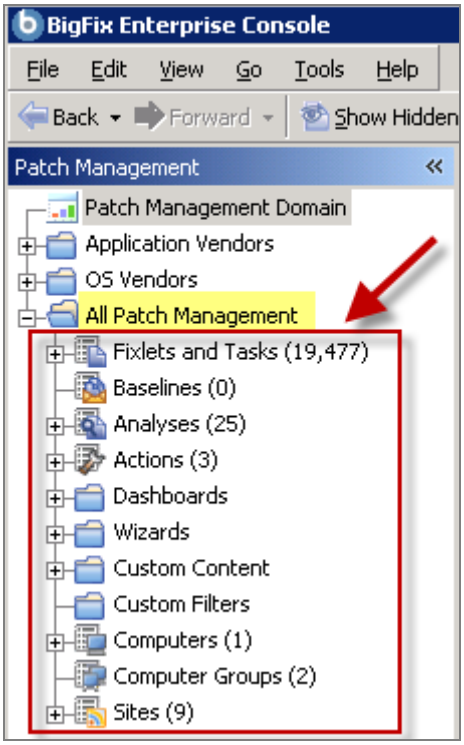


This content represents actions that need to be addressed so that Patch Management *for AIX* can display the most accurate and up to date information about security patches and updates for the systems in your deployment.

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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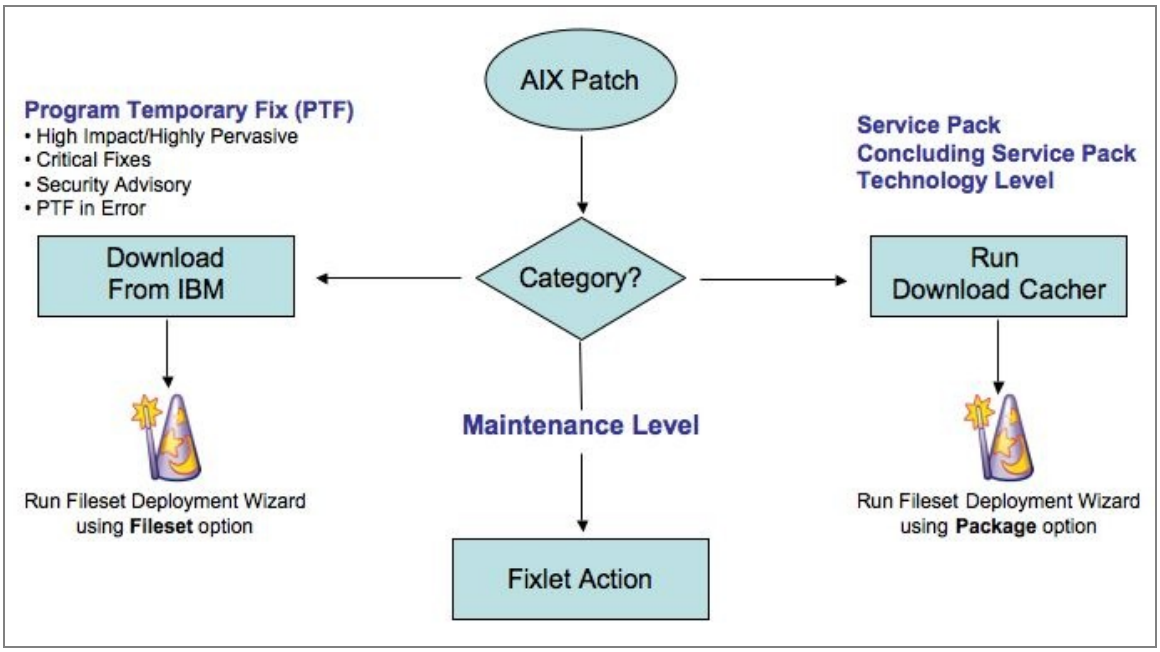
Part 2

Patch Management

Applying AIX Patches

BigFix provides three different methods for deploying AIX patches. The one to use depends on the type of patch you need to update.



To install a Program Temporary Fix (PTF), click the IBM link on the Fixlet message's description page, and then download the fix. To reduce the size of your download, know the technology level for which you are downloading the PTF. Before downloading, it is also helpful to run the "lslpp" command to upload a list of the previous packages you already have. After your download, import the file or files that you download into BigFix by using the *Fileset Deployment Wizard* and choosing the *Fileset* option. This option will upload the files to the BigFix server and create a Fixlet message you can use to deploy the patch.

For Service Packs, Concluding Service Packs, and Technology Levels, the process is the same, except that when you run the *Fileset Deployment Wizard*, choose the *Package* option.

The third process is the simplest. This is for Maintenance Level (ML) patches that IBM used in earlier releases of AIX. These Fixlet messages include the action script to download and deploy the fix. Because you might have more than one Fixlet message for a particular ML (IBM supplies these patches as multiple volumes), you might have to run multiple Fixlet messages to finish any one particular ML update.

The final part of the process is to test your systems, and then commit the fixes if you like them or reject the fixes if you do not. After you apply a fix it will stay there—even after a reboot—but is not considered

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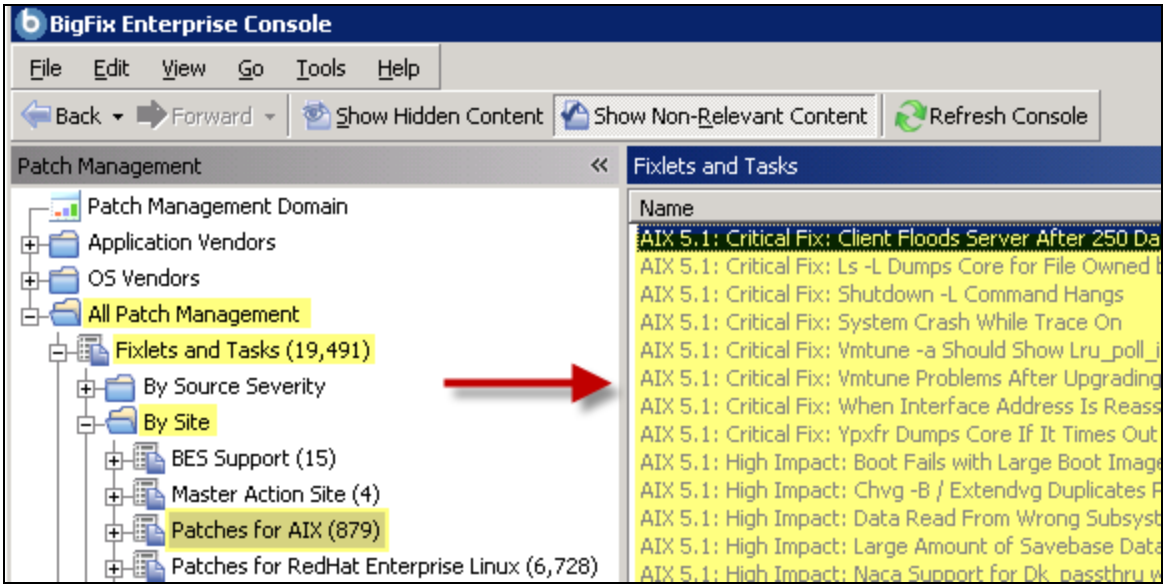
permanent. It is in a state called *Applied*, which can then be either *Committed* or *Rejected*. The *Commit Task* will commit all applied fixes and not just fixes that you specify. If you want to be more granular, you can write a custom “installp” command. The *Reject Task* will ask you for the APAR number of the fix you wish to rollback. You can get this APAR number from the original audit-only Fixlet message.

There are also some analyses that let you see the success or failure of your deployment. The most common errors are disk space, the OSlevel Fixlet not running as a policy action, or downloading the wrong file or not enough files into the Fileset Deployment Wizard.

Deploying Maintenance Level Patches

To deploy patches from the BigFix Console:

Go to the *All Patch Management* node of the navigation tree and click *All Fixlets and Tasks.* Select *By Site* and click *Patches for AIX.* You will see a list of Fixlets messages display in the list panel on the right - select the Fixlet message you want to deploy from the list.



For this example, the Fixlet message *AIX 5.3: Recommended Maintenance Level Package 5300-02* was selected.

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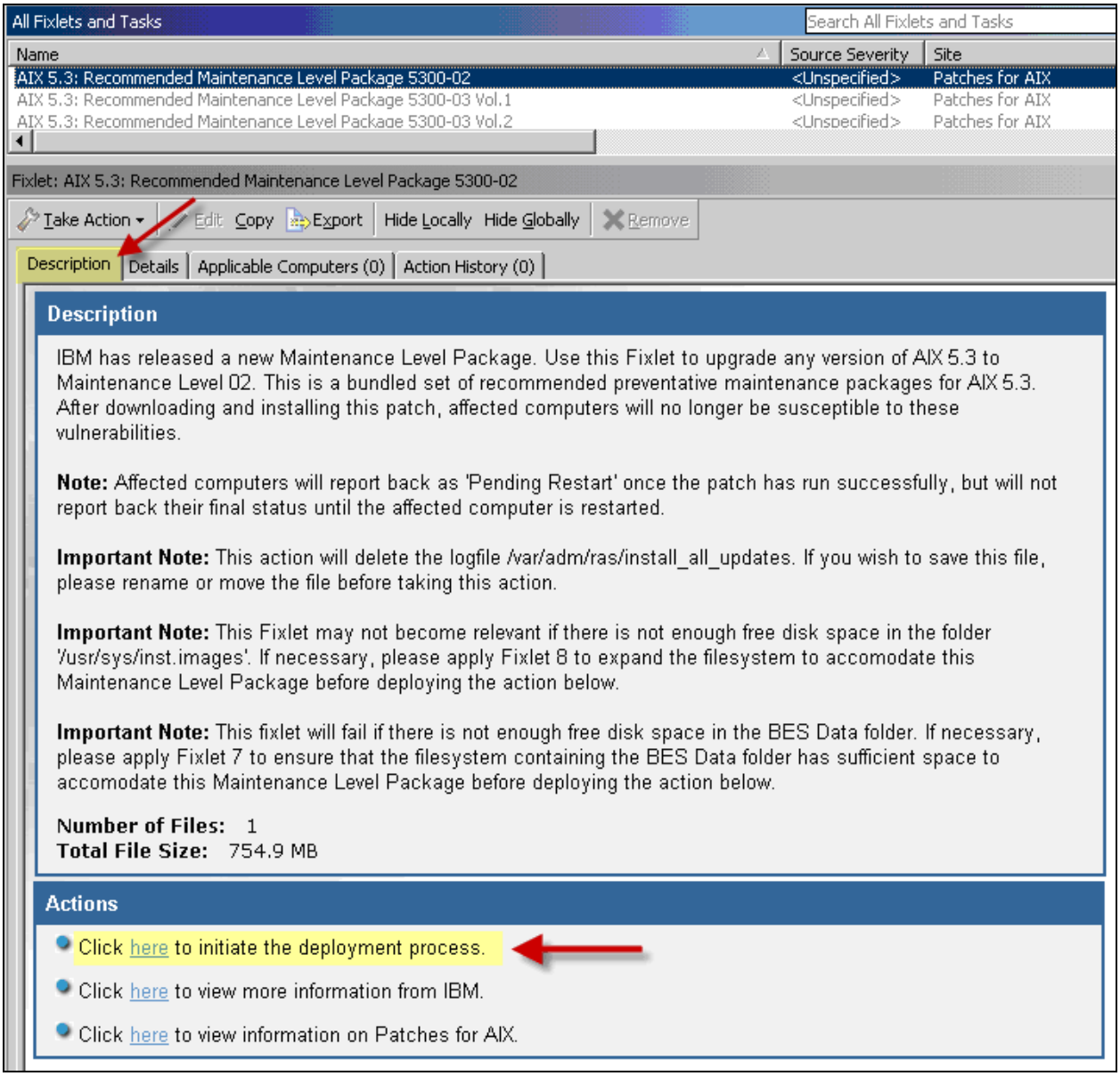

Review the text in the Description box and select the link in the Actions box to initiate deployment. For more information about setting options using the tabs in the Fixlet window, consult the BigFix Console Operators Guide.

Individual AIX Fileset Updates

To deploy an AIX fileset update using the AIX Fileset Deployment Wizard, you must first obtain the desired filesets from the IBM website.

AIX fixes are located here:
http://www-912.ibm.com/eserver/support/fixes/fixcentral/main/pseries/aix

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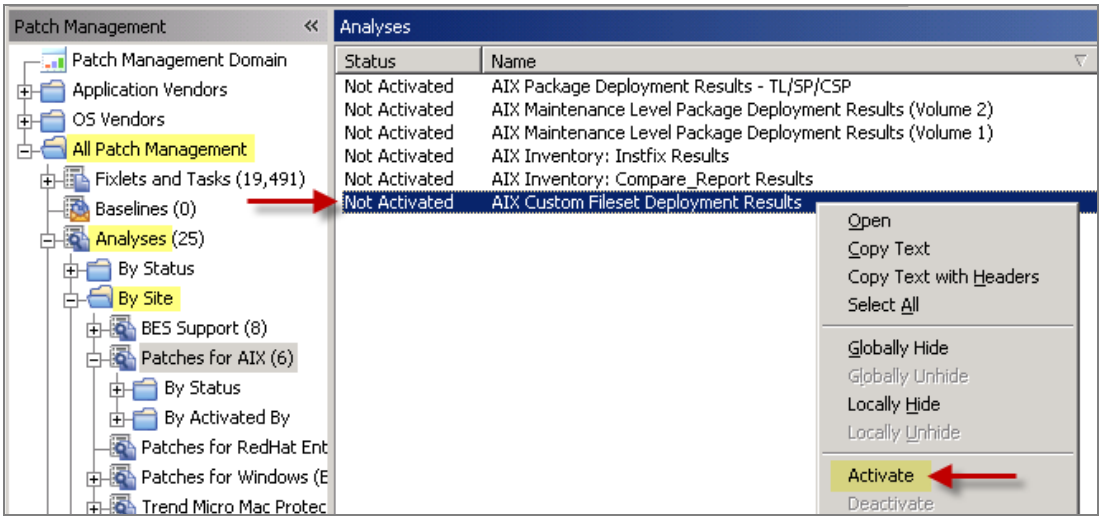
> **Note:** You can obtain detailed instructions on using IBM's website from the BigFix Knowledge Base: http://support.bigfix.com/cgi-bin/kbdirect.pl?id=453.

To create a custom Task or Fixlet message, run the AIX Fileset Deployment Wizard after downloading all filesets for your AIX update. The Wizard will prompt you for the location of the fileset you wish to deploy. Use the folder option to deploy multiple filesets or the download URL for a single Fileset. Select relevant OS platforms and customize text fields as necessary.

After completion, the generated one-time action or Fixlet message will appear in the BigFix Console and will allow you to deploy the AIX update to relevant computers.

To view detailed information regarding the results of deploying your AIX Fileset update, activate the *AIX Custom Fileset Deployment Results* Analysis. To do this, open the *All Patch Management* node in the navigation tree and click *Analyses.* Sort the list of analyses *By Site,* and highlight the *AIX Custom Fileset Deployment Results* analysis in the list. Right-click, and select *Activate.*



AIX Package Updates

To deploy AIX Technology Levels, Service Packs, or Concluding Service Packs, you must first download the update using the AIX Download Cacher. To use the AIX Download Cacher, deploy the Task "Run Download Cacher Tool - AIX". To do this, open the *All Patch Management* node in the navigation tree and click *All Fixlets and Tasks.* Sort the list *By Site,* and select *Run Download Cacher Tool.*

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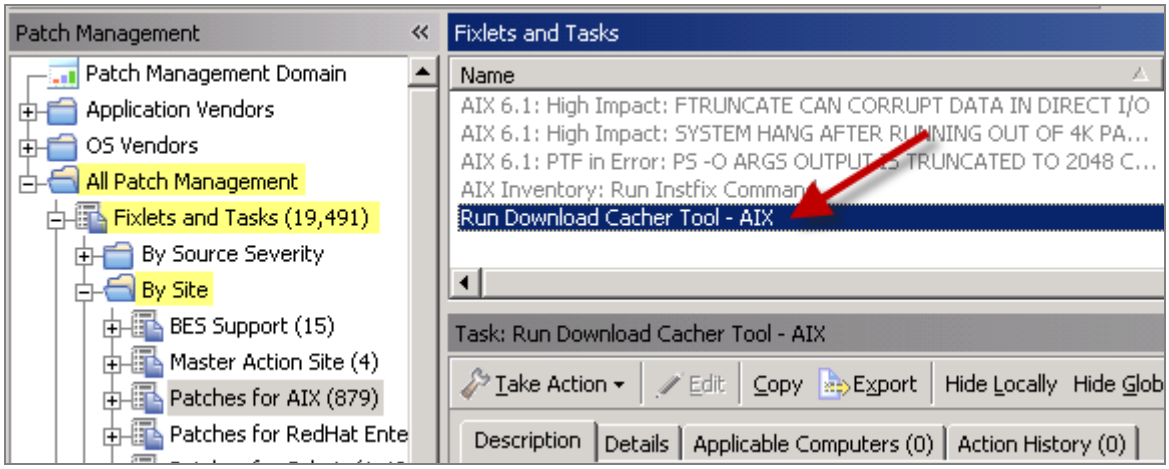
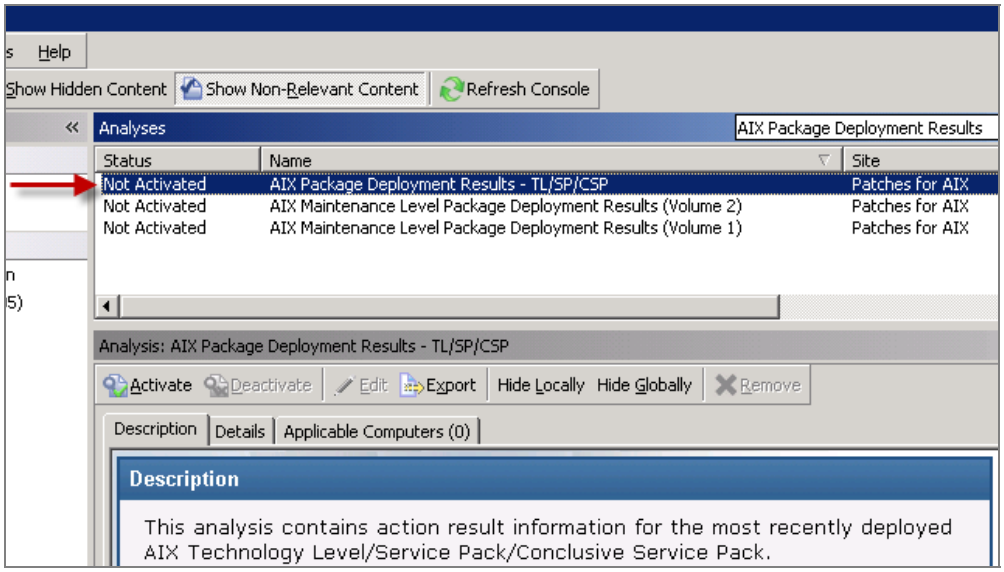


After you have downloaded the update package, run the AIX Fileset Deployment Wizard to create a one-time action or Fixlet message. After choosing the "Package" Option, the Wizard will prompt you for the location of the AIX package you wish to deploy.

After completion, the generated one-time Action or Fixlet message will appear in the BigFix Console and will allow you to deploy the AIX package to relevant computers.

To view detailed information regarding the results of deploying your AIX package update, activate the Analysis "AIX Package Deployment Results - TL/SP/CSP".



Using the Download Cacher

The Download Cacher utility enables you to deploy a service pack, concluding service pack, or a technology level. The Download Cacher uses FTP to download specific fix packs. Ensure that your environment does not block FTP usage.

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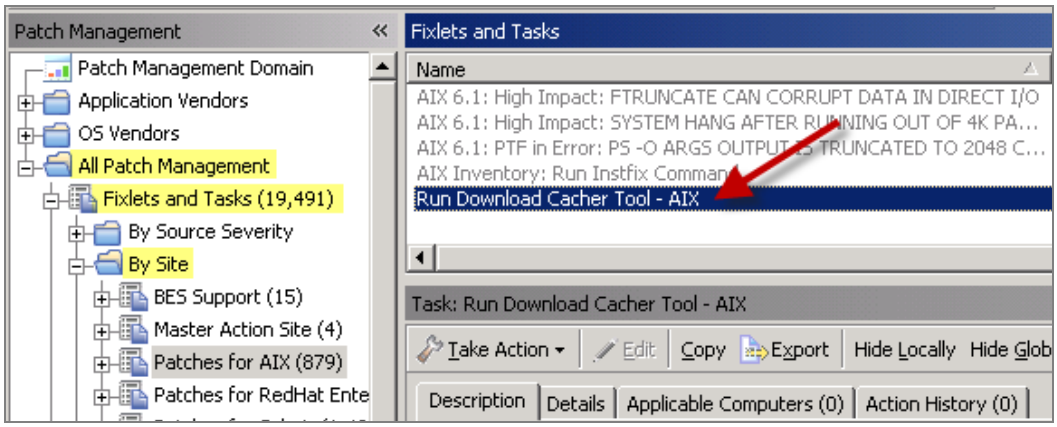
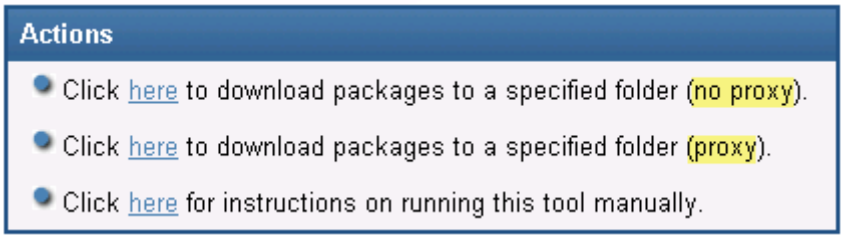
The Download Cacher tool for AIX is a Perl executable designed to automatically download and cache AIX Technology Levels, Service Packs or Concluding Service Packs to facilitate deployment of AIX Fixlet messages.

To access the tool, open the *All Patch Management* node in the navigation tree and click *All Fixlets and Tasks.* Sort the list *By Site,* and select *Run Download Cacher Tool* from the list panel.



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



You may also run the download cacher manually. The cacher uses FTP to download specific fix packs. Ensure that your environment does not block FTP usage. In this case, the tool can be downloaded from the BigFix support website: http://support.bigfix.com/cgi-bin/kbdirect.pl?id=372.

You will also need the BigFix BFArchive tool in the same directory as the AIX Download Cacher. The BFAchive tool can be downloaded from: http://support.bigfix.com/cgi-bin/kbdirect.pl?id=372.

To run this tool, you may wish to create a batch file with the following parameters.

Sample.bat

```
AIXDownloadCacher-x.x.exe C:\temp c:\logs 5300-05 5200-08-02 5300-004-CSP 5300-07-01-0748 http://www.proxyserver.com:8080 proxy_user proxy_password
```

Usage

```
AIXDownloadCacher-x.x.exe DirectoryPath AIXPackageNames [PROXY - must use this keyword if using a proxy server] [proxyaddress:port] [proxy domain username] [proxy password]
```

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Required Parameters

DirectoryPath

The full path to the folder in which you should save downloaded files. Please ensure the DirectoryPath exists before running the Download Cacher.

AIXPackageNames

Specify AIX package name(s). Separate each name with a space (i.e.: 5200-08-02 5300-04-CSP 5200-09 5300-07-00-0747 5200-10-02-0730). By default, fix pack for all service packs will not include the corresponding Technology Level. This tool will work for non-Maintenance Level Packs only. In addition, all specified package names must match the ones listed on IBM's AIX Fix Central website.

Optional Parameters

[Logfile Directory]

Full path to the folder where you would like to create the log file. By default, the logfile is placed in the BigFix Client Logs directory (ex: C:\Program Files\BigFix Enterprise\BES Client__BESData__Global\Logs).

[PROXY] [Proxy URL] [Proxy Username] [Proxy Password]

PROXY is a keyword used to indicate that downloads must go through a proxy server. If your network requires a proxy server for Internet access, you must specify this keyword and provide 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 (ex: 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.

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

Using the Fileset Deployment Wizard

Before running the Wizard, download any necessary packages from IBM's website.

Fileset Updates

After you have obtained all of the filesets for your AIX update, run the *AIX Fileset Deployment Wizard* to create a custom Task or Fixlet. From the navigation tree, click the AIX Deployment Wizard under the *IBM AIX* node.

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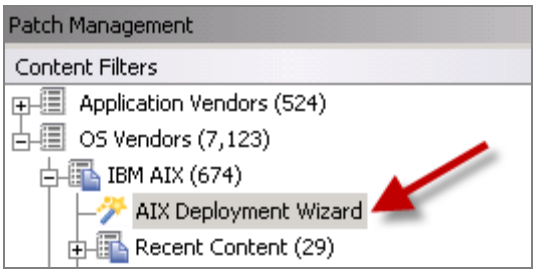
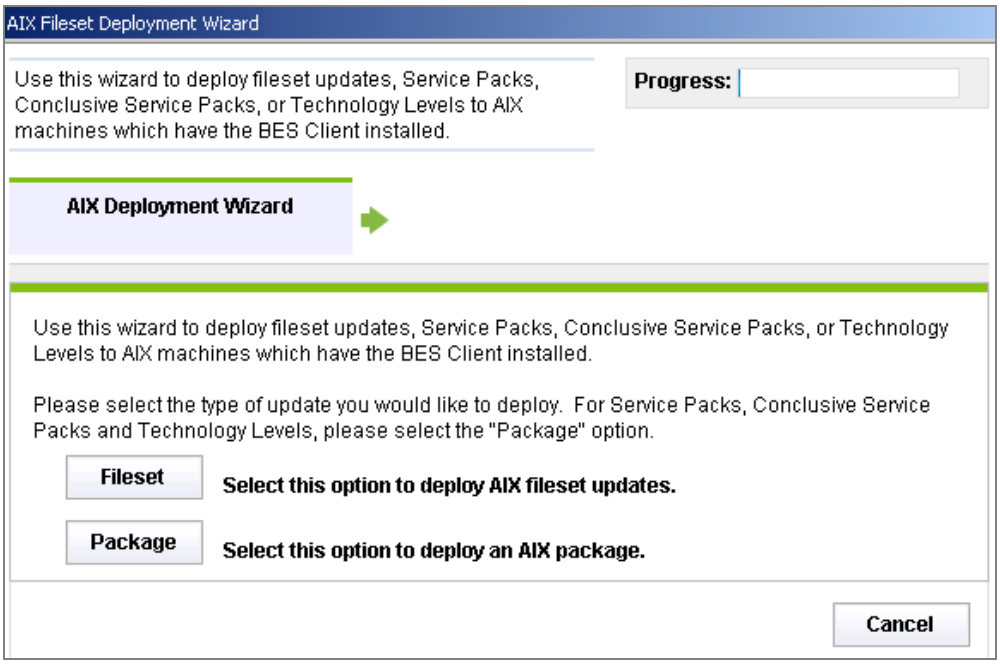


The Wizard opens.



To deploy AIX fileset updates, click the *Fileset* button.

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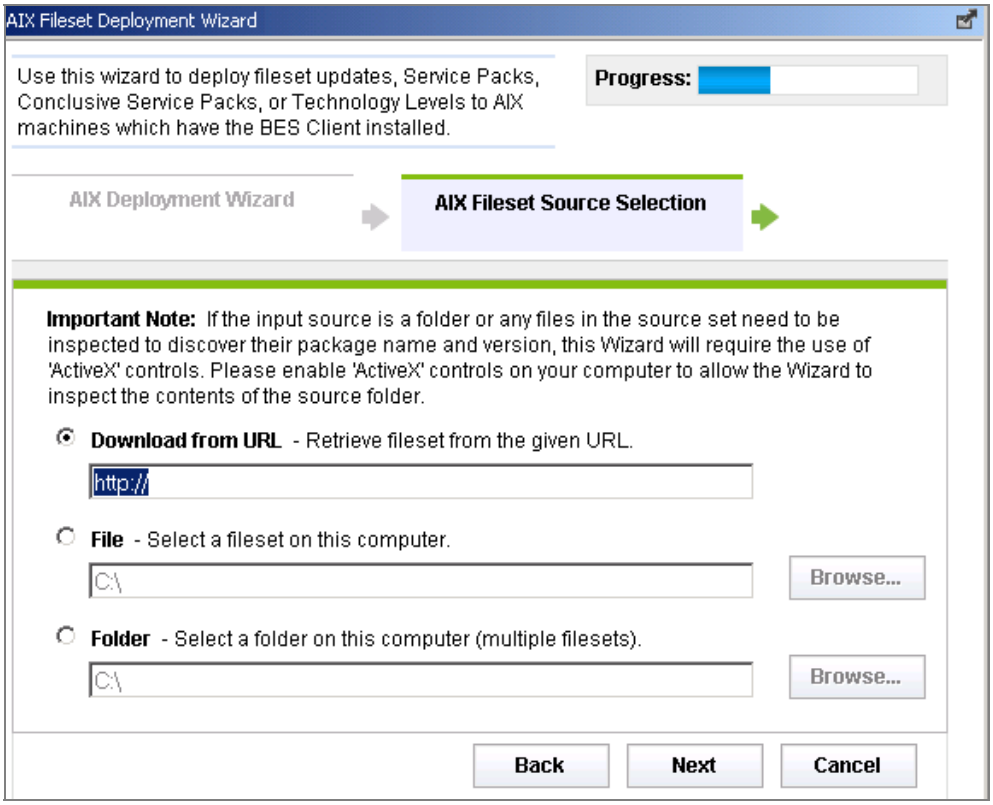

In this window, input the source of the fileset(s) you wish to deploy. You can input this information one of three ways:

- Download from URL
- File (for single filesets)
- Folder (for multiple filesets)

Click *Next*.

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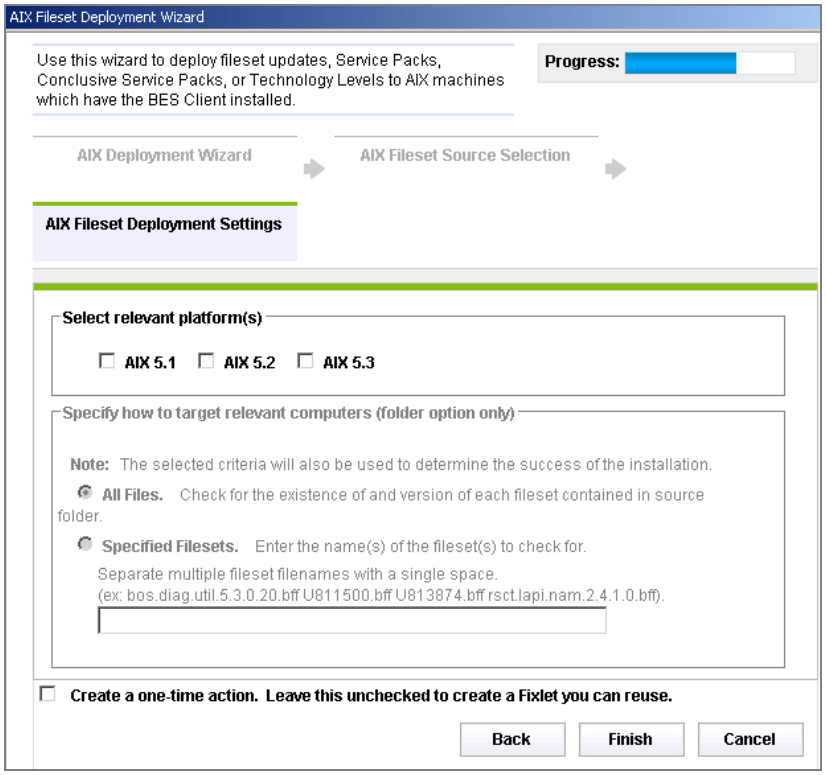

In the final window:

1. Select the relevant platform or platforms.
2. If you are using the folder option, specify how to target relevant computers.
3. Check the box if you want to create a one-time action rather than a reusable Fixlet.
4. Click *Finish*.

After completion, the generated one-time action or Fixlet message will appear in the BigFix Console and will allow you to deploy the AIX update to relevant computers.

To view detailed information regarding the results of deploying your AIX Fileset update, activate the Analysis "AIX Custom Fileset Deployment Results" (Analysis ID: 22).

Package Updates

After you have obtained the package for your AIX update, run the *AIX Fileset Deployment Wizard* to create a custom Task or Fixlet:
Open the AIX Fileset Deployment Wizard from the navigation tree. To deploy a package of AIX updates, click the *Package* button.

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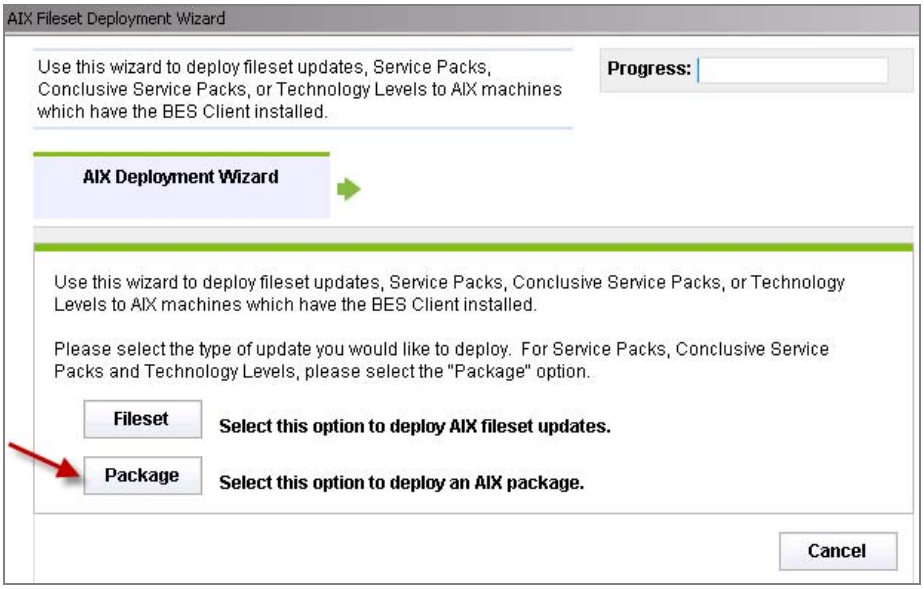
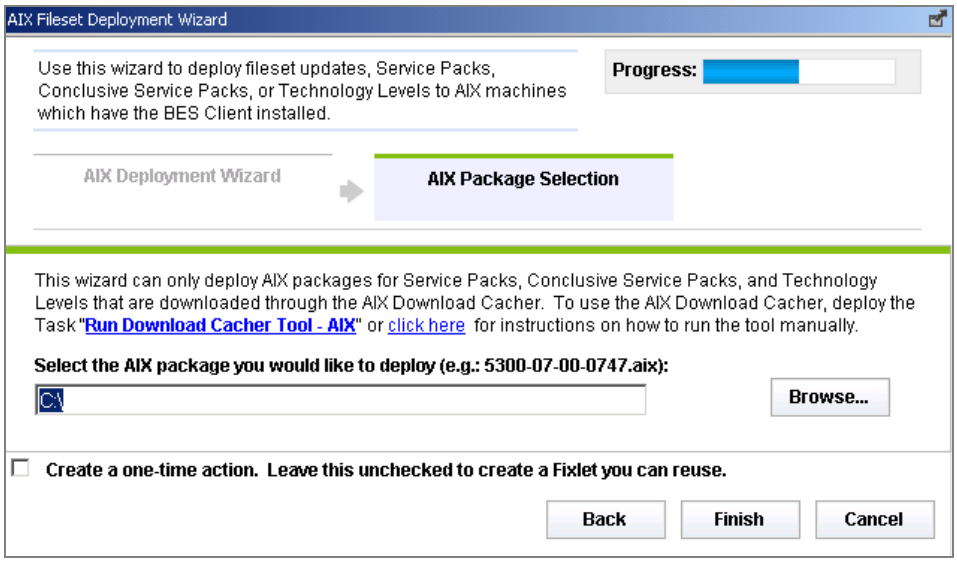


In the next window:

1. If you have not done so already, run the Download Cacher to download any necessary AIX package.
2. Enter the location of the AIX package you want to deploy.
3. Check the box if you want to create a one-time action rather than a reusable Fixlet.
4. Click *Finish*.



After completion, the generated one-time action or Fixlet message will appear in the BigFix Console and will allow you to deploy the AIX update to relevant computers.

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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?

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 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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