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

Patch Management for AIX

The Tivoli® Endpoint Manager Patch Management solution, which includes deploying a multi-purpose, lightweight 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 Fixlets for the latest Maintenance Level packages for AIX 5.1, 5.2, and 5.3. It also includes inventory-only Fixlets for AIX Security Advisories, Critical Fixes, High Impact/Highly Pervasive Fixes and Program Temporary Fixes (PTFs) released since the last Maintenance Level Package update.

In addition, the Patches for AIX Fixlet site contains task messages to compare the patch level of a computer with the most currently available fixes. You can view your results in the Tivoli Endpoint Manager console after you have activated all analyses.

Apply AIX patches

The three primary types of AIX patches are:

- Program Temporary Fixes
- Service Packs, Concluding Service Packs
- Maintenance Releases

There are several different methods for deploying AIX patches. Choose the method appropriate to the type of patch you want to apply.
**Note:** AIX tests and distributes updates that are bundled in Service Packs or Technology Levels. Individual updates can be installed from these bundles. For more information, see the related Knowledge Base article.

To install a Program Temporary Fix (PTF), click the IBM link listed on the Fixlet description. To reduce the size of your download, identify the technology level for which you are downloading the PTF. Before downloading, run the “lslp” command to upload a list of the packages you already have. After the download completes, import using the Filesset Deployment Wizard and choose the Filesset option. This option uploads the files to the Tivoli Endpoint Manager server and creates a Fixlet to deploy the patch.

For Service Packs, Concluding Service Packs, and Technology Levels, select the Package option from the Filesset Deployment Wizard.

Maintenance Level (ML) patches are used for earlier releases of AIX and include an action script that downloads and deploys the fix. Because you might have more than one Fixlet for a particular ML, you might need to run multiple Fixlets to finish any one particular ML update.

Next, you test your systems. After you apply a fix, it is in a state called Applied, which you can then either Commit or Reject. The Commit task commits all applied fixes; not just the fixes that you specify. For a more specific fix, you can write a custom “installp” command. The Reject task prompts you for the APAR number of the fix that you want to roll back. You can get this APAR number from the original audit-only Fixlet.

Some analyses display the success or failure of your deployment. The most common errors are:

- Disk space
- Operating system level Fixlet not running as a policy action
- Downloading the wrong file
- Not enough files in the Filesset Deployment Wizard

**Deploy Maintenance Level patches**

To deploy patches from the Tivoli Endpoint Manager console, go to the All Patch Management node of the navigation tree and click Fixlets and Tasks. Select By Site and click Patches for AIX. You can see a list of Fixlets displayed in the list panel on the right. Select a Fixlet to deploy from the list.
For this example, the Fixlet AIX 5.3: Recommended Maintenance Level Package 5300-02 was selected.

IBM has released a new Maintenance Level Package. Use this Fixlet to upgrade any version of AIX 5.3 to Maintenance Level 02. This is a bundled set of recommended preventative maintenance packages for AIX 5.3. After downloading and installing this patch, affected computers will no longer be susceptible to these vulnerabilities.

**Note:** Affected computers will report back as "Pending Restart" once the patch has run successfully, but will not report back their final status until the affected computer is restarted.

**Important Note:** This action will delete the log file /var/adm/ras/install_all_updates. If you wish to save this file, please rename or move the file before taking this action.

**Important Note:** This Fixlet may not become relevant if there is not enough free disk space in the folder /lust/systinst/images*. If necessary, please apply Fixlet 0 to expand the filesystem to accommodate this Maintenance Level Package before deploying the action below.

**Important Note:** This fixlet will fail if there is not enough free disk space in the BES Data folder. If necessary, please apply Fixlet 7 to ensure that the filesystem containing the BES Data folder has sufficient space to accommodate this Maintenance Level Package before deploying the action below.

Number of Files: 1
Total File Size: 734.9 MB
Individual AIX Fileset updates

To deploy AIX fileset updates using the AIX Fileset Deployment Wizard, first obtain the filesets you want from the IBM website.

You can access AIX fixes from the following link:
http://www-933.ibm.com/support/fixcentral/?productGroup0=ibm/systemp&productGroup1=ibm/aix

Note: For detailed instructions about using IBM’s software support website, see the following Knowledge Base article:
http://support.bigfix.com/cgi-bin/kbdirect.pl?id=453

To create a custom task or Fixlet, run the AIX Fileset Deployment Wizard after downloading all filesets for your AIX update. The wizard prompts you for the location of the fileset that you want 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 displays in the console and allows you to deploy the AIX update to relevant computers.

To view detailed information about the results of 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, first download the update using the AIX Download Cacher. 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. Click one of the options in the Actions box to download the update package.

After you have downloaded the package, run the AIX Fileset Deployment Wizard to create a one-time action or Fixlet. After choosing the Package option, the wizard prompts you for the location of the AIX package. After entering the location, the one-time action or Fixlet displays in the console, where you can deploy the AIX package to relevant computers.

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

Use the Download Cacher

You can use the Download Cacher utility to deploy Service Pack, Concluding Service Pack, or Technology Level fixes. The Download Cacher uses FTP to download specific fix packs. Ensure that your environment does not block FTP usage. The Download Cacher tool for AIX is a Perl
executable that automatically downloads and caches AIX Technology Levels, Service Packs, or Concluding Service Packs to facilitate deployment of AIX Fixlets.

To access the tool, open the **All Patch Management** node in the navigation tree and click **Fixlets and Tasks**. Sort the list **By Site**, and select **Run Download Cacher Tool**. When the task window opens, select the appropriate link in the Actions box to start the download.

You can also run the Download Cacher manually. To do this, download the tool from: [http://support.bigfix.com/cgi-bin/kbdirect.pl?id=372](http://support.bigfix.com/cgi-bin/kbdirect.pl?id=372).

The BigFix BFArchive tool must be in the same directory as the AIX Download Cacher. The BFArchive tool can be downloaded from: [http://support.bigfix.com/cgi-bin/kbdirect.pl?id=372](http://support.bigfix.com/cgi-bin/kbdirect.pl?id=372).

To run this tool, create a batch file with the following parameters:

```
Sample.bat
```

**Usage**

AIXDownloadCacher.exe --dir <path to output directory> --aixid <Fileset ID> [optional parameters]

**Required Parameters**

```
--dir <path to output directory>
Directory where finished archived will be saved. This directory is also used for temporary storage of downloaded files before compressing them into a single archived file.

--aixid <Fileset ID>
AIX Fileset ID to be downloaded (5300-04-03). This option can be used multiple times to download several AIX Filesets.
```

**Optional Parameters**

```
--ftpmode <ACTIVE/PASSIVE>
Specify the FTP Mode used for downloading files. Defaults to ACTIVE.

--proxyserver <servername:port>
Name and port of proxy server ([http://myproxy.company.com:8080](http://myproxy.company.com:8080)).

--proxyuser <username>
Proxy username if required by server.

--proxypass <password>
Proxy password if required by server.
```
--logdir <path to log directory>
Specify the directory to write the log file to. Defaults to the current working directory.

--repo <path to local repository of .bff files>
Specify the location of the local cache to check before attempting to download files from the internet. Missing files are added to the cache directory if write access is enabled.

--clean
Remove temporary files after each run. Enabling this option disables the ability to resume failed and incomplete downloads. Default behavior is to only remove temporary files after all files for the fileset have been downloaded and a complete archive has been created.

--sha1
Rename the archived .aix file to its sha1 value.

--help
Display usage information.

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

---

### Use the Fileset Deployment Wizard

Before running the wizard, download any necessary packages from the IBM website.

### Fileset Updates

After you have obtained all 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.

When the wizard opens, click *Fileset* to deploy AIX Fileset updates.
In this window, input the source of the fileset or filesets that you want to deploy. You can input this information in one of three ways:

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

After making your selection, click Next. In the following window, select the relevant platform or platforms. If you are using the folder option, specify how to target relevant computers. Check the box if you want to create a one-time action rather than a reusable Fixlet. Click Finish to complete the action.
After completion, the generated one-time action or Fixlet displays in the Tivoli Endpoint Manager console and allows you to deploy the AIX update to the relevant computers. To view detailed information about the results of deploying your AIX Fileset update, activate the *AIX Custom Fileset Deployment Results* analysis (analysis ID: 22).

### Package updates

After you obtain the package for your AIX update, you create a custom task or Fixlet. To do this, open the AIX Fileset Deployment Wizard from the navigation tree. At the initial screen, select *Package*.
In the next window, run the Download Cacher to download any necessary AIX packages. Enter the location of the AIX package that you want to deploy, and check the box to create a one-time action. Click Finish.

After completion, the generated one-time action or Fixlet displays in the Tivoli Endpoint Manager console and allows you to deploy the AIX update to relevant computers.
Frequently asked questions

Why would a patch complete successfully but ultimately fail?

Under very specific circumstances, a patch is successfully applied but the relevance conditions indicate that it is still needed in your deployment. 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?

Ensure that you have applied the patch to the correct computers or manually download the patch.

Why is there no default action?

It is recommended that you test on a testbed before applying the Fixlet or patch. There could also be multiple actions associated with the Fixlet. Read the text in the Description tab of the Fixlet before initiating the action.

What does “Manual Caching Required” mean?

Some vendors do not provide direct download links to their site. Click through the End User License Agreement (EULA) and manually download it to your Tivoli Endpoint Manager server.

What is a superseded patch?

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

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 Three

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