



BigFix Client UI

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strawgate
(1337 pts)



Jr Veteran

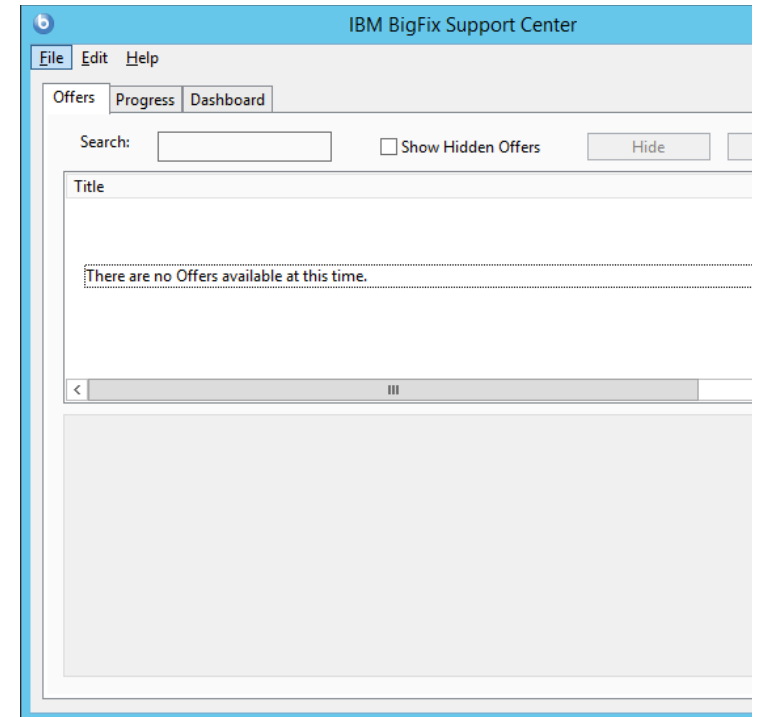
Accelerating Your Success™

BESClientUI

BigFix Enterprise Suite Client User Interface

What is it?

- BigFix User Interface on the client
- Runs 1 process per user in the user's session
- Runs on Mac OS X and Windows
- Two types of panes
 - Native Panes:
 - BigFix Offers
 - Progress (Action History)
 - HTML + Relevance Pages
 - BigFix Core Protection (Trend Micro)
 - BigFix Power Management



BigFix users can create HTML + Relevance pages that can be used for anything including providing endpoint users support information

WHY BESClientUI?

WHY BigFix Enterprise Suite Client User Interface?

Reasons to use the BES Client UI

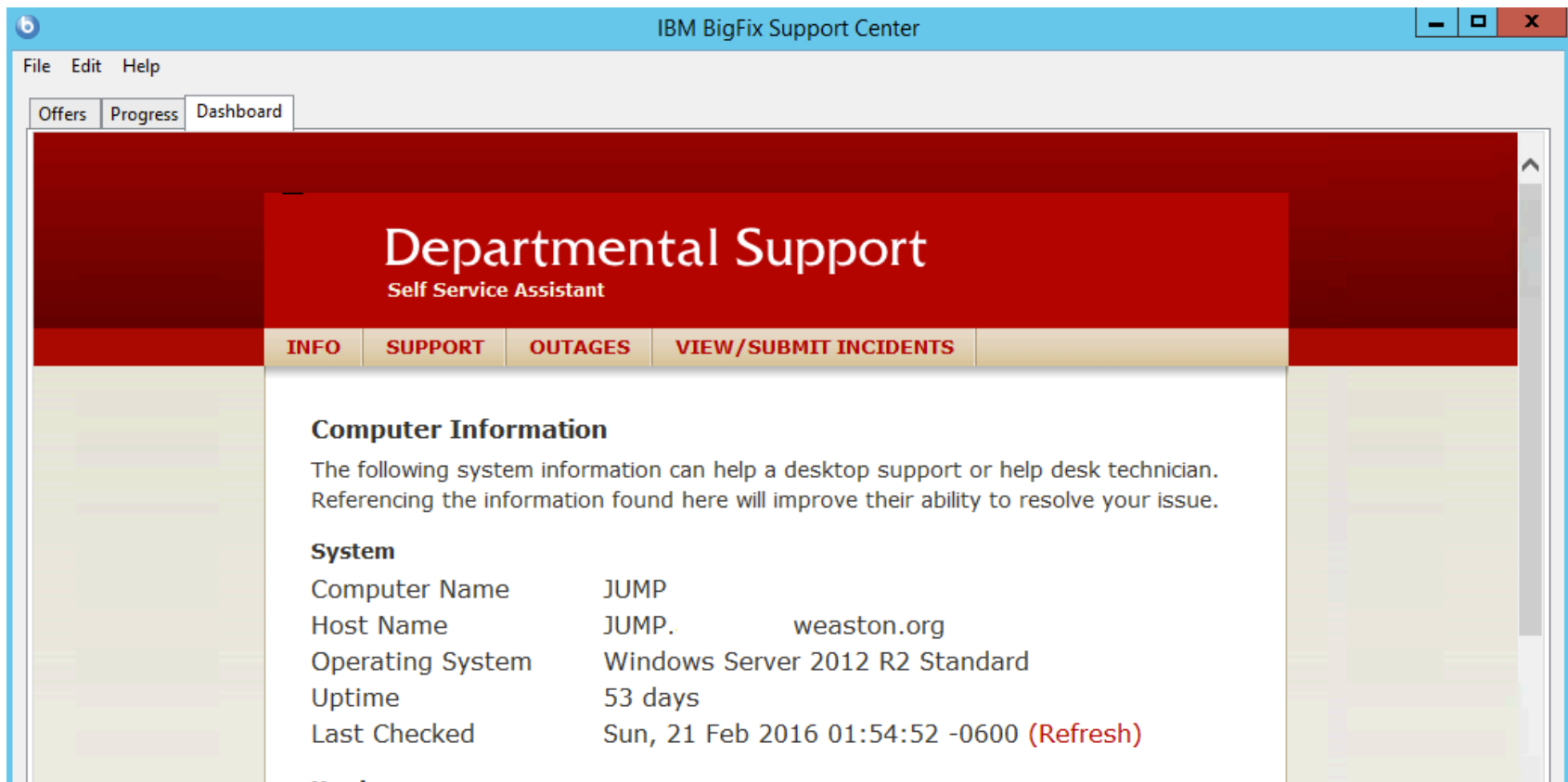
- Same HTML+Relevance Page works on Mac OS X and Windows
- Relevance Queries run as system even though ClientUI is in the user's session (!)
- Single source of information about the endpoint for field or level 1 help desk staff
- Simple way to collect advanced information about an endpoint while on the phone with a user
- You can provide other value – links to outages pages, links to ticketing system, etc
- You can make shiny things



Building my ClientUI

With help from the University of Unreferenc-able Customer

Demo Time! Below image is for when my demo fails



Building your ClientUI

With help from Genesis One

The genesis for a simple creation story

Day 1: Find an web template

Day 2: Remove extras from web template

Day 3: Gather links for useful additions

Day 4: Determine what information you want to display

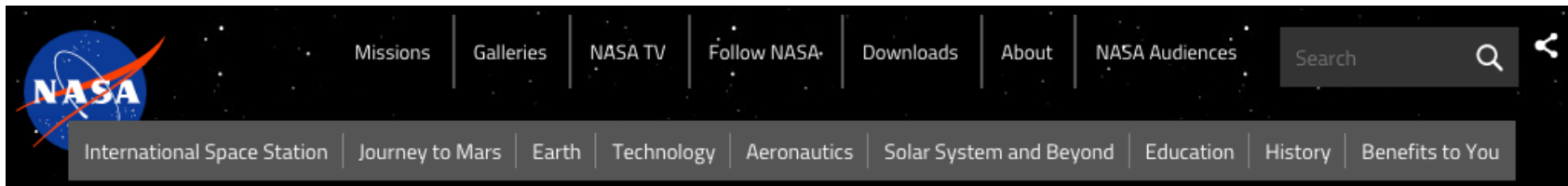
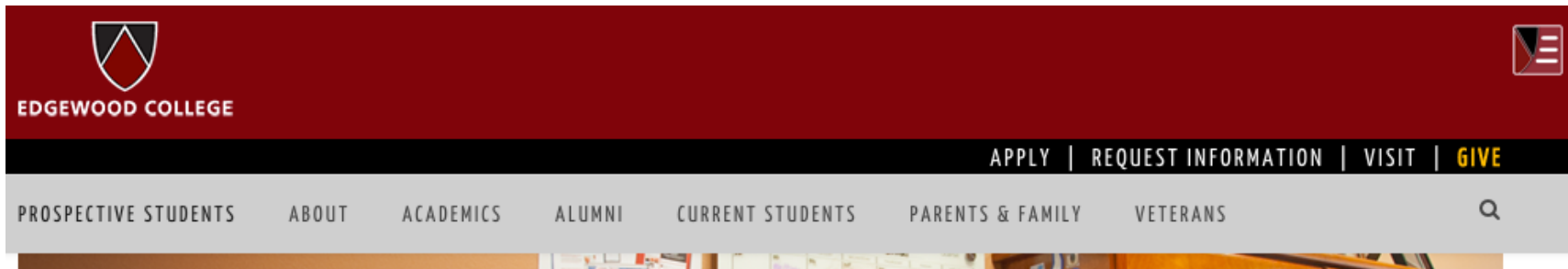
Day 5: Get something working

Day 6: Get everything working

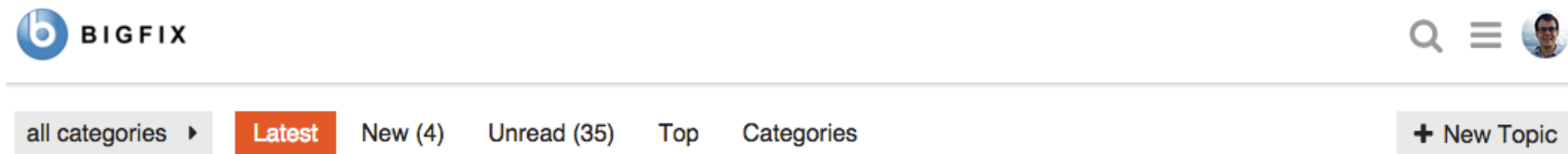
ClientUI Creation Story

Day 1: Find a Web Template

1. Pick your template (I prefer templates with nav bars and an organizational logo)



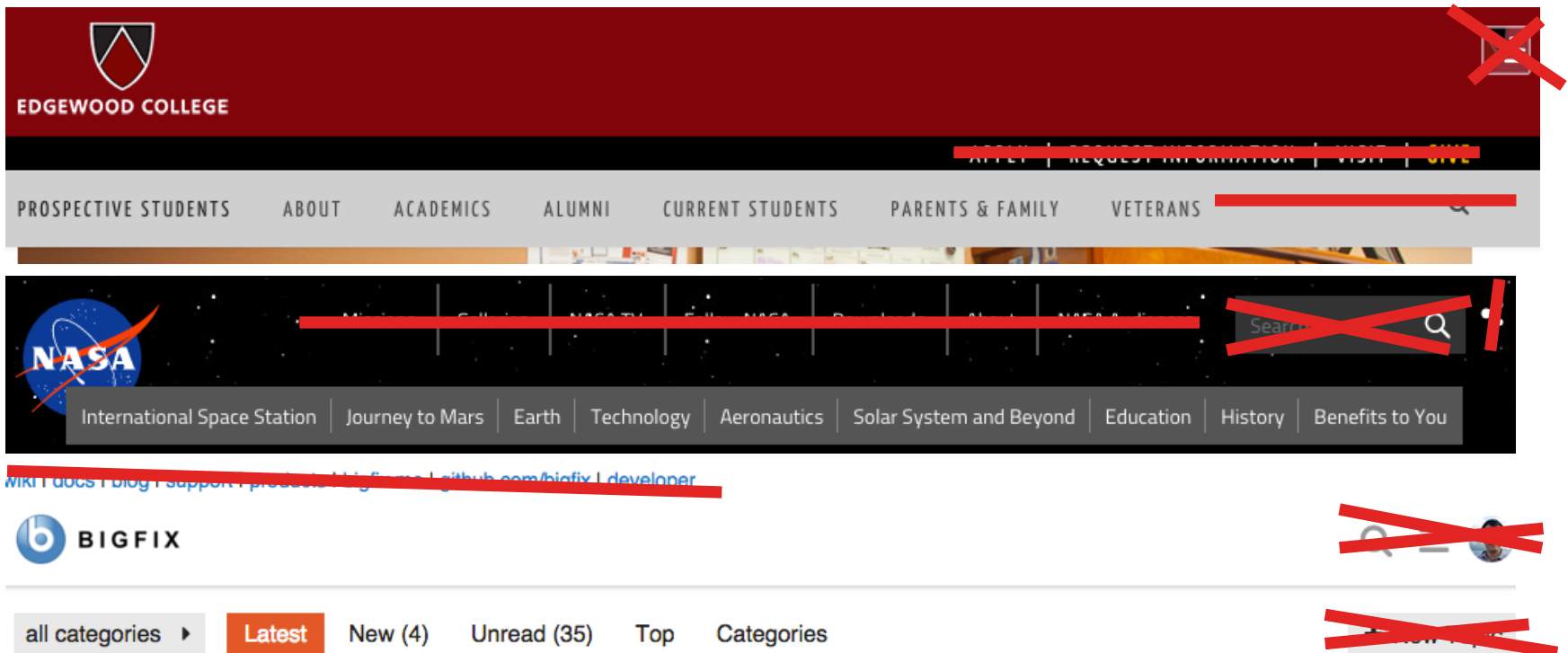
[wiki](#) | [docs](#) | [blog](#) | [support](#) | [products](#) | [bigfix.me](#) | [github.com/bigfix](#) | [developer](#)



ClientUI Creation Story

Day 2: Remove everything you don't need

1. Turn it into a shell – rip out anything to do with flash, remove search boxes, share buttons. You want the smallest amount of HTML that still maintains layout



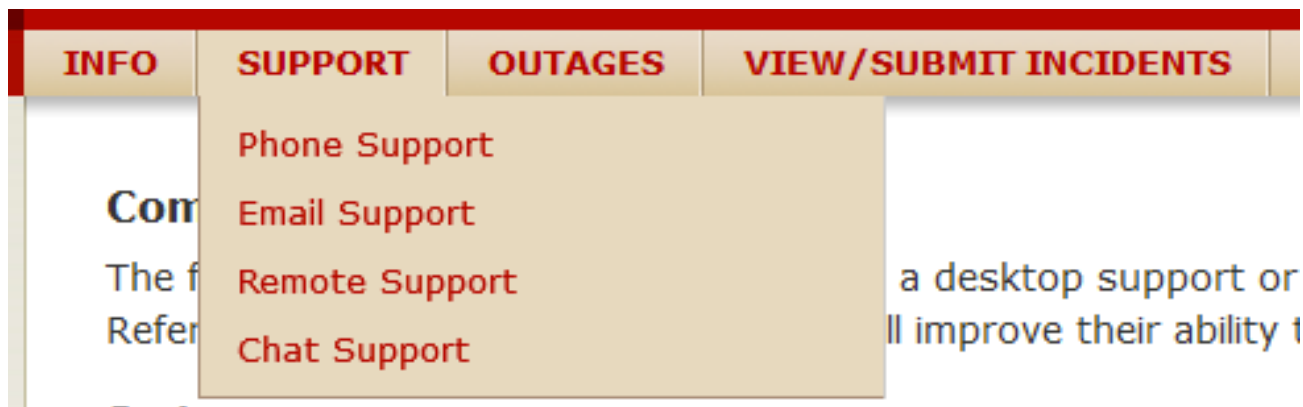
2. Flatten out the .css and .js (you'll thank me later). Move all the files into the root and change references to them accordingly



ClientUI Creation Story

Day 3: Find some useful stuff to link to

1. Do you have an outages page? I think you might!
2. Do you have a bunch of options for contacting your help desk? Probably.
3. Do you have an online ticket tracking system?



Hint: You can use mailto to open the user's mail client when they click email support!

`mailto:support@fabrikam.com?subject=Everything is broken!&body=Hi, everything is broken so I dont need to tell you what my issue is just fix it`

ClientUI Creation Story

Day 4: What information do you want?

1. What user information do you want visible?
 1. Primary User?
 2. Local vs Domain?
2. What system information do you want available?
 1. Make?
 2. Model?
 3. Memory?
 4. Free Disk Space?
3. What lifecycle information do you want available?
 1. System Provisioning Date?
 2. Warranty end date?
4. What network information do you want available?
 1. **Wireless SSID**
 2. IP address?
 3. Subnet -> Location Mapping?

ClientUI Creation Story

Day 4... Continued – write the relevance!

One dashboard .html for both Mac OS and Windows:

1. System Make
 1. if (Windows of Operating System) then (if (exists wmi) then (string value of select "Manufacturer from Win32_ComputerSystem" of wmi) else ("N/A")) else ("Apple")
2. System Model
 1. if (Windows of Operating System) then (if (exists wmi) then (string values of selects "Model from Win32_ComputerSystem" of wmi) else ("N/A")) else (machine name)
3. Free Disk Space
 1. if (Windows of Operating System) then (((free space of drive of system folder)/(1024 * 1024 * 1024)) as string & " GB Free") else (((free space of filesystem of folder "/") / (1024*1024*1024)) as string & " GB")
4. Wireless SSID
 1. (if (Windows of Operating System) then (if exists (ssids of wifis of adapters of network) then (it as string) else ("None"))) else (string of values of entries whose

ClientUI Creation Story

Day 5: Get something working!

Client relevance queries get placed inline with HTML and are evaluated and implanted into the HTML before rendering (Similar to session relevance):

Code:

```
<table style="width:90%">
  <tr>
    <td width="35%">Computer Name </td>
    <td width="65%"><?relevance computer name ?></td>
    ...
  </tr>
</table>
```

Result:

System

Computer Name	JUMP
Host Name	JUMP.ad.a
Operating System	Windows Server 2012 R2 Standard
Uptime	53 days

ClientUI Creation Story

Day 5 Continued: Testing on a client!

Before you test the your dashboard make sure you enable the client dashboard with:

1. Enable the Client UI

Tasks in the "BES Support" Site

"BES Client Setting: Client UI Tray Mode Selection"

"BES Client Setting: Client UI Enable/Disable Main Dialog"

2. Install your ClientUI

Copy your web content onto a client into:

...\BES Client__BESData__UISupport

3. Refresh Everything

Restart the besclient service

Wait for the tray icon to appear

4. Test

Click on the tray icon!

BigFix Enterprise ▸ BES Client ▸ __BESData ▸ __UISup

Name

- _dashboard.html
- _DS_Store
- hoverIntent.js
- ie6.css
- ie7.css
- ie8.css
- jquery-1.4.2.min.js
- main_nav_bg.jpg
- main_one_column.css
- nav_bg.jpg
- nav_button_border.gif
- navBgShadow.png
- shell_bg.png
- site-title.pdn
- site-title.png
- superfish.js
- window-bg.jpg

ClientUI Creation Story

Day 6: Get everything working!

Once you have everything working I'd suggest doing the following:

1. Create a unit testing plan for testing various things like Wifi SSID, Free Disk Space, etc on Mac OS and Windows
2. Deploy to a subset of users and go from there!
3. Teach your help desk staff about this – it gives them a single place to point users towards to get computer information (And it works off-network).

ClientUI Creation Story

Enjoy what you have made, it is very good!

We had a busy week! To recap:

Day 1: Find an web template

Day 2: Remove extras from web template

Day 3: Gather links for useful additions

Day 4: Determine what information you want to display

Day 5: Get something working

Day 6: Get everything working

What now?

ClientUI Creation Story

Day 7: Technician UI!

This one gets done on your day off so nobody will know about it!

What is the Technician UI? Great question!

It's a hidden tab that is activated with a hotkey and can provide useful information to someone at the endpoint.

Demo time!

Stability

Hard Reboots	1
Blue Screen	0
Uptime	53 days
Last Checked	Sun, 21 Feb 2016 01:54:55 -0600

Security

EMET Installed	True
AppLocker Enabled	True



ClientUI Creation Story

Day 7 Continued: Technician UI!

What about it?

- Technician UI is activated with a hotkey
 - Control + Alt + Shift + T
- Different .html file from _Dashboard
 - _Technician.html
- Careful with Long Queries
 - Will run every refresh of the clientUI
 - Will run for every user session

Stability

Hard Reboots	1
Blue Screen	0
Uptime	53 days
Last Checked	Sun, 21 Feb

Security

EMET Installed	True
AppLocker Enabled	True

Missing Patches

Critical Patches	1
Important Patches	14

Questions and Fixlet Debuggers?

QnA?



Avnet Security Services

Converting ADMX and ADML Templates to Fixlets

ADMX and ADML Templates

Microsoft configuration templates for Group Policy

ADMX templates are what powers a lot of group policy. We often deal with customers who don't know whether to use BigFix (hours of development) or Group Policy (right click).

ADMX templates store the language-agnostic description IDs and changes needed for configuring various settings

ADML templates store the language-specific descriptions that get used when you open up group policy editor

Challenge:

- Use relevance to convert ADMX & ADML templates to BigFix Fixlets

- Capture the ADMX logic to write the fixlet

 - Need to write relevance that works

 - Need to write actionsript that works

ADMX and ADML Templates

Microsoft configuration templates for Group Policy

Solution: <https://forum.bigfix.com/t/updated-converting-group-policy-settings-admx-templates-into-fixlets/14287>

Disable: Allow Automatic Updates immediate installation

Disable: Allow non-administrators to receive update notifications

Disable: Allow signed updates from an intranet Microsoft update service location

Disable: Do not adjust default option to 'Install Updates and Shut Down' in Shut Down Windows dialog box

Disable: Do not connect to any Windows Update Internet locations

Disable: Do not display 'Install Updates and Shut Down' option in Shut Down Windows dialog box

Disable: Enabling Windows Update Power Management to automatically wake up the system to install scheduled updates

Disable: No auto-restart with logged on users for scheduled automatic updates installations

Disable: Turn off the upgrade to the latest version of Windows through Windows Update

Disable: Turn on recommended updates via Automatic Updates

Disable: Turn on Software Notifications

Enable: Allow Automatic Updates immediate installation

Enable: Allow non-administrators to receive update notifications

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Enable: Do not adjust default option to 'Install Updates and Shut Down' in Shut Down Windows dialog box

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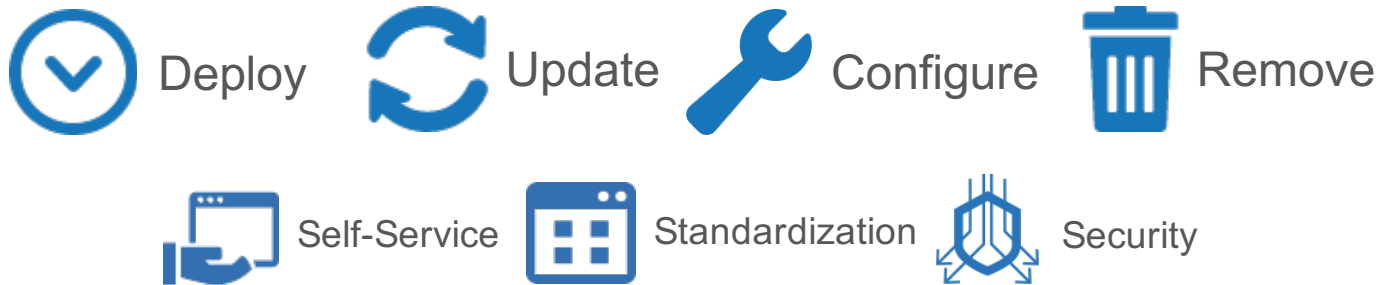
Avnet Security Services

Avnet Patch for IBM BigFix and BigFix.Me Challenges

What is Avnet Patch for IBM BigFix

The latest patches and content for common third-party applications

Avnet Patch for IBM BigFix is a patch and software catalog covering a large variety of commonly used third-party software. Our catalog makes patches and content for 70+ common applications available to customers within a day of release saving time and money.



Extending the ecosystem is... fun!

Lots of iterations, lots of fixlets, lots of versions

Our average fixlet while undergoing development has been updated more than 6 times between initial release and customer availability.

So while we only have a little more than a hundred fixlets posted, we have actually posted **close to a thousand**.

One of the first issues we ran into is if the same content is uploaded twice, it creates a new version and supersedes the old one – even though nothing has changed... Causing annoyed BigFix.Me Regulars:



jgstew

CC: @lattanas @strawgate

I'm going to pick on @strawgate a bit in a sense ISV stuff is implemented in BigFix.Me

Most of what @strawgate is posting to BigFix.Me

Uninstall - VLC - Windows (Fixlet 9108)

older versions: 6491,7598,7720,8913,8973

submitted on 1/28/2016, Developed by strawgate

In Site:  [Avnet Patch for IBM BigFix](#) 

0 comments and 2 downloads and

0 Votes

Update - VLC - 2.2.1.0 - Windows (Fixlet 9107)

older versions: 6490,7597,7719,8912,8972

submitted on 1/28/2016, Developed by strawgate

In Site:  [Avnet Patch for IBM BigFix](#) 

0 comments and 2 downloads and

0 Votes

Deploy - VLC - 2.2.1.0 - Windows (Fixlet 9106)

older versions: 6489,7596,7718,8911,8971

submitted on 1/28/2016, Developed by strawgate

In Site:  [Avnet Patch for IBM BigFix](#) 

0 comments and 2 downloads and

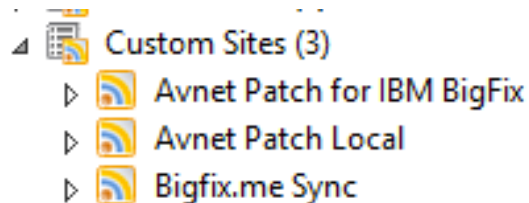
0 Votes



Extending the ecosystem is... interesting!

“Fine” Version Handling

We sync our own content down onto our build server as frequently as possible:



To decide whether we upload or not we see if the fixlet already exists and if it does we compare the content to determine whether we upload or not

```
Function Compare-Fixlets {
param(
[ValidateNotNullOrEmpty()][Parameter(Mandatory=$true, ValueFromPipelineByPropertyName=$true)]
[string]$Title,
[ValidateNotNullOrEmpty()][Parameter(Mandatory=$true, ValueFromPipelineByPropertyName=$true)]
[string]$FixletXML,
[ValidateNotNullOrEmpty()][Parameter(Mandatory=$true, ValueFromPipelineByPropertyName=$true)]
[string]$Relevance,
[ValidateNotNullOrEmpty()][Parameter(Mandatory=$true, ValueFromPipelineByPropertyName=$true)]
[string]$ActionScript
)
begin {}
process {
$_ | foreach {
```

Extending the ecosystem is... getting better!

The dream “Ideal” Version Handling

Problems with our “Fine” solution

- Manual uploads still create new versions on BigFix.Me
- Issues with our build server will cause duplicate uploads to BigFix.Me
- Issues with BigFix.Me will cause duplicate uploads to BigFix.Me
- BigFix.Me scale isn't clear yet
 - Until this week Syncing was failing for us as soon as we hit 500+ pieces of content in our site

Hopefully an ideal solution:

- BigFix.Me should do a comparison of currently uploaded fixlet versus new Fixlet and if they are equal – no changes should be processed.
- Especially when uploading multiple pieces of content at once (a multiple fixlets.bes file)

Extending the ecosystem is... challenging!

Other things to note

Other BigFix.Me things to note:

- Bulk removing content is hard
- BigFix.Me has different import criteria than BigFix does specifically around:

<DownloadSize></DownloadSize>

<Source></Source>

<SourceID></SourceID>

<SourceReleaseDate></SourceReleaseDate>

<SourceSeverity></SourceSeverity>

<CVENames></CVENames>

Thank you!

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