Customer Exercise Guide

SOFY BIGFIX

Document Version 1.7

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Introduction

HCL Solution Factory and BigFix – This guide is designed to walk you through demonstration scenarios using BigFix in the HCL Solution Factory (SoFy).

Please Note: The images in this document are provided to aid you in the creation and use of your HCL SoFy BigFix Solution. They are representations of the screens you will see, but <u>the images in this document may vary slightly</u> <u>from what you see in SoFy</u>. For example, you may see a different Helm Chart version than the one in the documentation. This is to be expected, as the documentation is not updated every time there is a new Helm Chart release.

You may be familiar with BigFix – It is commonly known as a systems and security management product which allows my customers to reduce cost, risk, and complexity of managing cloud, server, desktop, laptop, point-of-sale, and other endpoints – all using a single, intelligent agent – all through a single port – offering a complete view of their environment. This enables you to **find more**, **fix more** and **do more** than competing solutions in the marketplace.

As it relates to the HCL Solution Factory (SoFy) –SoFy is a HUGE investment in innovation for HCL Software. SoFy is the Cloud Native Solution Factory for HCL Software. This provides access to 50 containerized products which are the HCL Software Crown Jewels, 2,000+ REST API Endpoints and access to customized integrated demos. This will allow you to Deploy your enterprise software in minutes on any cloud. Amazing Talent. This is the realization of the dream of allowing customers like you to simply deploy and maintain enterprise software products at scale in minutes into dynamic public, private and public clouds.

Using BigFix will help your organization keep your endpoints continuously patched and compliant using one singular agent across multiple operating systems. With BigFix, you will be able to deliver patches in an efficient, automated process to reduce patching cycles from days to minutes.

Are you ready to gain some efficiency with BigFix? Let's get started!

Accessing SoFy

47 HCLSOFY

To access SoFy, navigate to <u>https://hclsofy.com</u> and click the "LOGIN" link in the upper right-hand corner (click "REQUEST ACCESS" if you do not have access)

While on this page, familiarize yourself with the SoFy site contents across the top of the screen:

LINKS ON TOP-RIGHT



- Contact us use this link to open a support ticket or provide feedback about HCL SoFy.
- Notifications contains information about solutions you build and deploy. You can view and dismiss notifications from this side bar.
- Profile contains information about your HCL SoFy profile.



LINKS ON TOP-LEFT

- HCL SoFy link returns you to the HCL SoFy home page.
- Catalog the Catalog lists the software components that can be added to Solutions within HCL SoFy. The Catalog Items are designed to work together to demonstrate an HCL software solution.
- API Directory lists the Application Programming Interfaces (APIs) available with HCL SoFy.
- Solutions This page shows the solutions you have currently deployed in SoFy, as well as their version and description. The solution name provides a hyperlink to the individual solution page.
- Guide use this link to view a tutorial about HCL SoFy. There is a 3-minute video tutorial on this page that will give you a tour of HCL SoFy.



Solution Setup and Prerequisites

Following the instructions in <u>Accessing SoFy</u>, navigate to <u>https://hclsofy.com</u>, log in, and build your SOFY instance.

Creating a Solution

From the menu bar at the top of the page, click on "CATALOG." Type "bigfix" in the box under the "Explore the HCL Software Catalog" heading and click "SEARCH." You will see results for BigFix:

NOTE: There is a grey box under the title of the catalog item that contains a dropdown list of versions. The latest available version may not correspond with the version in the image on the right, but the latest version is the one that appears in the grey box by default, and this is the version you should choose. <u>Make sure you</u> <u>choose the latest version of each catalog item unless you have a specific reason</u> <u>to choose an earlier version.</u>

Click "ADD TO SOLUTION" on each result from #3 above to add them to your BigFix demonstration environment. At the time of writing this document, there are two catalog results when searching for "bigfix" and both are required for the demos.



Automates the remediation a variety of endpoint operating systems and applications. This Cloud Native product preview is for HCL-led demonstration purposes.

ADD TO SOLUTION

NOTE: If you add the wrong catalog item to your solution you can remove it by clicking on the grey circle at the bottom of the catalog item, next to "ADDED TO SOLUTION" (it turns red when you hover over it)

After you click "ADD TO SOLUTION" for your catalog items, you will see a black bar at the bottom of the page. It will look like this:

are ______ Designation _______ Designation ______ Designation ______ Designation _______ Designation ________ Designation _______ Designa

Click on the **Solution Panel** icon at the bottom right of the screen to expand the Solution Panel. There are two sections in the Solution Panel:

- a. Create a New Solution
 - Solution Name required. The name should reflect the purpose behind the build.
 - Here are some solution name rules:
 - Name is limited to 15 characters.
 - First character must be a letter.
 - Name must be all lowercase.
 - No spaces are allowed in the name.
 - The hyphen (-) is the only special character allowed; if used, must be followed by a letter.
 - Version optional.
 - Description optional but encouraged. Give the solution a description to differentiate it from other solutions.

added in the line	
bigfix-solution	0
	15/15
Version	
0.1.0	(Ú)
	5/23
Description	
A SoFy solution to demonstrate BigFix. Created by <name> on <date></date></name>	
	67/300
Common Sonicas	
SoFy Common Services	
Monitoring	C
Access Control Service	G

Solution Contents. This section shows what catalog items have been added to the solution. You can remove items from the solution by clicking on the grey trash can to the right of the name (turns red when you hover over it).



Once you have entered the required

information, the CREATE button (below the Solution Contents section) becomes available. Click this button to create your solution.

NOTE: for best results, build the solution using the Chrome browser. Other browsers may produce errors during the build process.

After clicking the CREATE button, you are redirected to your Solution page:

T / Solutions / Drieston ra-vua		Solution	Q 0 00	PLOY V REBUILD V	Sandbox
		Selected Contents (2) ()		F ₀	Status NOT DEPLOYED
bftest0614-v03		HCL BigFix Demo Pack v10.0.4.2-Preview Helm Chart v0.2.4		~	Sandbox Id ① Not available
Version	0.1.0	HCL BigFix Preview v10.0.42-preview Helm Chart V0.15.4		~	View southerin conesore 🗹 Default Credentials. 💿
Updated	jun 14, 2021, 5:07:31 PM				Useiname: sel-admin Password; pass
Description		Included SoFy Common Services			Deployment Time
A SoFy solution.		Monitoring		0	Not available
					Remaining Time
		Access Control Service (ACS)		0	Not available
					Solution Domain/IP
					Not available
		Estimated Minimum Requirements for Solution Install		O	Solution Console
		1.16 - 1.19 Kubernetes Version			Not available
		Minimum Resources Required on Cluster		Ø	
		8 Minimum Linux CPD	8GB Minimum Linux Memory		
		1 Meumum Windows CPU	2G8 Minimum Windows Memory		
		Minimum Rossources required on Linux Nedept		0	
			200		
		Minimum CPU	258 Minimum Memory		

This page contains information about your new solution.

HCL SoFy Customer Exercise Guide	
Deploying a Solution	
 At the top of the screen, click the Sandbox" from the dropdown list. 	DEPLOY in Deploy in Sandbox Dr Deploy in Sandbox Dn Request HCL Now
Once the deployment process starts, you will see the following information in the "Sandbox" panel on the right: The Status will show "IN PROGRESS" while the solution builds in the Solution Sandbox	Sandbox Status Image: Imag

Extending Deployment Time

- 1. While we are waiting for the solution console to become available, we will extend the solution deployment time. Click on "Extend time". You have the following options:
 - 8 Hours
 - 24 Hours
 - 30 Days

Jun 11, 2021, 12:36:13 PM	
Remaining Time	
23 hours 54 minutes	Extend Time For
Solution Domain/IP	8 Hours
sbx0126.temp.hclsofy.dev	24 Hours
Solution Console	30 Days
https://sofy-console.sbx012	26.temp.hclsofy.dev

30-Day Sandbox Registration

by a member of our team.

Business Email *

Ē

Deployment Time

If you choose 30 days, you will be prompted to provide some additional information:

- Company: Provide your company Name
- HCL Affiliation type: The available choices are
 - HCL Software Customer
 - HCL Software Business Partner
 - o HCL Software Employee
 - o HCL Technologies Employee

If you are unsure, choose HCL Software Customer

Enter your company	/ name	
		1
HCL Affiliation type *		
HCL Software Customer		
TI HCL Software Business Partn	er	
HCL Software Employee		
HCL Technologies Employee		

By registering for this extended sandbox, you are agreeing to be contacted

This field is auto-filled and cannot be changed

This field is auto-filled and cannot be changed

Click "Submit" and you will see the same "Sandbox Updated" with the new time listed (in this case, 24 hours).

Sandbox Updated

The sandbox time has been extended to 24 Hours.

DISMISS

NOTE: Extending the time does not add this amount of time to the Remaining Time (e.g., clicking Extend Time -> 8 Hours or 24 Hours does not add 8 or 24 hours to the remaining time) – it sets the Remaining Time to the option you choose.

The solution deployment is now in progress. The

VIEW SOLUTION CONSOLE

button is not available until the solution sandbox build is underway. Once the build starts, you can click the Solution Console button and login.



HCL BigFix SoFy Solution Login

1. Open the solution console using the credentials provided on the Solution page. The Default Credentials are listed on the right-side

of the screen, just below the

VIEW SOLUTION CONSOLE DUtton.

NOTE: The Solution Console opens in a new tab by default, so if you did not make note of the credentials, you can return to Solution Dashboard without having to use your browser's back button

	Log In	
Username or email		
sol-adm		
Password		
	Log In	

When you log in, the screen you see is the HCL SoFy Solution Console. The Solution Console provides a simplified administration experience for your solution. If the solution is running in the SoFy Sandbox, a link to the Solution Console is displayed in the Solution Details view.

				-	Dashboard	
About bigfix-dixon A SoFy solution						
Solution Content (2) 🕕						
HCL BigFix Demo Pack Helm Chart : v0.0.40	HCL BigFix Preview Helm Chart : v0.14.15	SoFy Common Services				
General Information Links, API Base URLs and documentation	General Information Links, API Base URLs and documentation	SoFy Access Control Service Ready Solution Console Ready Grafana Ready				
Log Files Container, Init container and additiona logs	Log Files Container, thit container and additional logs	Prometheus Ready				
Kubernetes Resources & Utilization	0					
17 Total Deployments	Pods	K8s Services Total 18 ClusteriP 17	31 Total ConfigMaps	>	1207 milicores Overall CPU Usage	0 2/2 Completed
10 Total PVCb	23 Pods	LoadBalancer 1 NodePort 0	10 Total Secrets	>	11284 mebibytes Overall Memory Usage (*)	
2 Total Statefulsets	Ready(20) Not Ready(3)	ExternalName 0	262 Total	>	• c31p1vacg0b7qkvn7b5g Namespace	
Quick Help & Support						
Help Documentation Guides Our Guides keep you informed of important setup and action steps needed to know throughout our application. There is also detailed	Contact Support ¹² HCLSoF y Need to report an issue or get a hold of us? Open at licket and a member of our support team will reach out to you as accor as					

NOTE: Your screen will have the same content as the preceding image <u>but may differ slightly in numbers and results</u> – like Pods that are ready/not ready. Please be patient as all components of the demo solution build to completion.

Dashboard Familiarization

You can take this time to tour the SoFy dashboard. Next to the Solution Name (the name you gave your solution in step

seven of the previous section) you will see two sideways chevrons, or a "double greater than" symbol: click on this to expand the left side-pane. You will see that the view you are currently seeing is the Dashboard, as evidenced by the name being in a darker highlight in the list on the left side-pane, and the title at the top center of the page.

The Dashboard shows you an overview of your Solution Content, Kubernetes Resources, and Events.

Solution Content

The next item below the Dashboard is Solution Content, which provides details on your products/services in your solution. Clicking on the cards will provide you with more detailed information. Here, details of the services such as name, health status, links, API base URLs, API Documentation links and more can be accessed via the product card. Logs related with the services can also be accessed from here.

When you click on the green or red dot (Health icon) of the card, a pop-up window will display all pods associated with that service. If one of the container states is not healthy in any of the pods associated with the service, the health of the service is considered as unhealthy and is represented with a red circle. If it is healthy, it is represented as with a green circle.

Kubernetes Resources

Below Solution Content you will see Kubernetes Resources, which gives you information on Deployments, ConfigMaps, Pods, Secrets, Services, and other information.

Guides

For more information about the contents of the Solution Console, click on the link, the sixth in the list on the left side-pane.

You can click on the double chevron (now a "double less than" symbol) to collapse the left side-pane.



Using the BigFix Solution in SoFy

1. Click on "HCL BigFix Preview" -> "General Information" – then click on the Appropriate button. Use the User ID and Password provided with the link. For purposes of these exercises, we will be starting with the HCL BigFix WebUI, which is the top item.

L 7	Solution Name docver-v2 Version 0.1.0				
	< Back			Solution Conten	
	HCL BigFix Demo Pack HCL BigFix Preview SoFy Access Control Service	Solution Console Grafana P	rometheus		
•	HCL BigFix Preview				
*					
	Quick Links				۰ ×
0	HCL BigFix WebUI https://bigfix-webui-sbx0062.play.products.pnpsofy.com/login Default Login User ID : BFXUser Password : BFXR0ckst				Open Link
	HCL BigFix WebReports https://bigfix.webreports.sbx0062.play.products.pnpsofy.com/login Default Login User ID : BFXUser Password : BFXRDcks1				Open Link
€	HCL BigFix REST API https://bigfirs.server.sbx0062.play.products.pnpsofy.com/api/help i Default Login User iD : BFXUser Password : BFXRDcks!				Open Link

If you will be using this solution for an extended period, copy the URL, and/or bookmark the site.

BigFix Patching Scenario

Executive Summary

BigFix Patch provides an automated, simplified patching process that is administered from a single console.

Built on BigFix technology, this software gives you unified, near real-time visibility and enforcement to deploy and manage patches to all your endpoints, wherever they may be. This software can help you reduce business risk, control costs, and enhance security.

BigFix Patch:

- Automatically manages patches to hundreds of thousands of endpoints for multiple operating systems and applications, regardless of location, connection type or status.
- Applies only the correct patches to the correct endpoint.
- Gives you greater visibility into patch compliance with flexible, near real-time monitoring and reporting.
- Provides near real-time visibility and control from a single management console.
- Can help reduce security risk by streamlining remediation cycles from weeks to hours.

PLEASE NOTE: This is the first version of BigFix on HCL SoFy, and it is intended to demonstrate the effectiveness of patching endpoints using BigFix. The Web User Interface used during this exercise is the actual BigFix interface. However, because the interface is used in a containerized operating system, some of the functionality in areas other than patch is limited. We will add functionality with each subsequent release of BigFix on HCL SoFy

Scenario

You are a retail customer with establishments where you serve your own customers. You have a central datacenter at your corporate office, regional distribution centers, and retail stores. These locations may or may not have dedicated connections (VPN or otherwise).

The patch process for your company has been established to support the business, and your job is to enforce the process to protect the business interests. You must patch your endpoints, regardless of location, on a schedule that does not interfere with retail business hours. You must be able to select patches based on severity and operating system, and you must be able to deploy patches on different schedules with different procedures based on location, function, or operating system. Finally, you must have the ability to perform all functions without the aid of a local operator.

The endpoints in your environment are managed different ways depending on their location and purpose. For purposes of this scenario, the endpoints are distributed as follows:

- Windows devices represent the point-of-sale devices (POS) in your retail stores
 - These devices must be patched weekly between 10:00pm today, and 1:00am tomorrow*
 - These devices must be rebooted automatically at the end of the patch cycle.
 - Ubuntu devices represent other devices in your retail stores
 - These devices must be patched weekly between 11:00pm today and 1:00am tomorrow*
- Red Hat devices represent devices in your datacenter and your regional distribution centers
 - These devices must be patched monthly, between 10:00pm today and 12:30am tomorrow*
 - o These devices should not be scheduled to reboot at the end of the patch cycle
 - o These devices can be patched out of band (outside the normal patch window)

•



*For purposes of this exercise, we assume "today" and "tomorrow" are the pre-set days for your maintenance window, rather than defining a specific day/date that you would have to wait for to use this scenario script.

Note: this demonstration scenario and the script below is provided as a means of familiarizing you with how BigFix works. Even if your business does not line up with the retail model, most businesses have endpoints in more than one location, and must apply patches on varying schedules with varying requirements. Once you are familiar with the solution, feel free to exercise it using different scenarios, or use your own patching scenario.

Windows Patch Walk-thru Script: Weekly Patch Cycle

1. To perform the demo, navigate to <u>https://hclsofy.com</u> to create an environment, or to the WebUI URL you bookmarked previously.

NOTE: SoFy Solutions do not last forever; they have a maximum life of 24 hours at any given time. If you wait more than 24 hours without extending, the solution will expire, and you will have to create another one (see Extending Deployment Time for more information).

In this scenario we are going to apply Windows patches using BigFix. We will apply some filters to look at Critical Patches for Windows, and we will focus on patches that are relevant in our environment right now. As we walk through this demonstration, feel free to work with the filters to see what choices you have, and how the selections change by applying and removing filters.

We will first log into the WebUI.

- a. This URL is located on the Solution Content -> HCL BigFix Preview -> General Information -> Open Link Button to the right of "HCL BigFix WebUI
- b. Use the User ID and Password located on this page to log into the WebUI.

IMPORTANT: The username and the password are both case sensitive!

The	e first page	vou will see	in the BigFig	x WebUI is the	Overview	Dashboard.
	, mot puge	you will see	in the big n		0,01,010,00	Dusinbourd.

ී 💼 bigta-webu stadil/26.temp holioty.dev/framework					• • • * *
LLG FLX Devices Apps - Deployments Reports			Query	edik coshboard Add Softw	ere Dopky
Numbers 6 Device managed 2 Oktobar penthew with spepticable devices 0 Software graduages 0 Destations 4 Deployments that are currently open		Patch Severity			AN 08 +
Deployments in the last 30 days	Multiple Antipa Gaura		croue Fatch	AL Dise	Colymice
	and the second story				
	BigRix Server: Register Download Plug-In for Software Distribution		Single Other	100%	1 🖵
	BigRix Server: Register Download Plug-In for Software Distribution Reneme Linux Computer - Instituene - Inglicepatch-demo		Single Other Single Other	100%.✔ 0%.✔	15
Gaw Fullek Stepant	Rigfler street Register Downkaat Play in fer Schwart Distribution Reesens Linux Company - Anatomies - Englispanch-dema Reflact WelckT envice		Single Other Single Other Single Other	1008↓ 05↓ 05↓	15 05 15

Take a minute to look around and see what information is available on this page. This is your "at-a-glance" information center for managing your infrastructure. This is data available to you without having to initiate an endpoint scan or run a report against a database. These tiles are customizable as well – you can re-arrange them or gather different data than what is currently visible.

From the WebUI Overview Dashboard, Click Apps -> Patch.

🜔 BIGFIX

@ Copyright HCL Technologies Limited 2021, All Rights Re

BFXUser

Password

Remember Me





On this page we see at a glance, the patches that are applicable in our environment right now. The BigFix Agent has already evaluated this current content and determined that it is applicable to the device on which it is running. Again, we did not have to initiate a scan or run a report – the agent already knows.

0	BIGFIX Devices App	os ∽ Deployments Re	ports							
Pa	select a favorite r	eport + Save R	eport						Export Sho	ow Summary
73	patches 😵 Reset all filters							View: 20 -	< 1 - > 16	of 4 pages
	Patch Name 1	Vulnerable Devices 14	Open Actions	ID	Site Name	Severity	Software	CVE IDs	Category	Rek
	Type for search	1 ‡	:				Type for search	Type for search		mr
	Multiple-Package Baseline	4	0	101	Patches for RHEL 8	-hode-	N/A	N/A		
	Enable the Multiple-Packa	a	0	201	Patches for RHEL 8	400mbr	N/A	N/A		
	Import RPM-GPG-KEY-redh	4	0	301	Patches for RHEL 8		N/A	N/A		
	dnf command with RHSM	4	0	401	Patches for RHEL 8		N/A	N/A		
	RHSA-2021:2569 - Libxml2	4	0	21256901	Patches for RHEL 8	Moderate	8#Servet#x86_64	CVE-2021-3516, CVE-2021	Security Advisory	Jun 2
	RH8A-2021:2572 - Systemd	4	ø	21257201	Patches for RHEL 8	<unspecified></unspecified>	8#Server#x86_64	N/A	Bug Fix Advisory	Jun 2
	RHSA-2021:2574 - Rpm Se_	4	D	21257401	Patches for RHEL 8	Moderate	8#Server#x86_64	CVE-2021-20271	Security Advisory	Jun 2
	RHSA-2021:2575 - Lz4 Sec.,	4	0	21257501	Patches for RHEL 8	Moderate	8#Server#x86_64	CVE-2021-3520	Security Advisory	Jun 2
	RHBA-2021:2577 · Subscri	4	0	21257701	Patches for RHEL 8	<unspecified></unspecified>	8#Server#x86_64	N/A	Bug Fix Advisory	Jun 2
	RHBA-2021:2581 - Openid	4	0	21258101	Patches for RHEL 8	<unspecified></unspecified>	8#Server#x86_64	N/A	Bug Fix Advisory	Jun 2
	RHSA-2021:2717 - System_	4	0	21271701	Patches for RHEL 8	Important	8#Server#x86_64	CVE-2021-33910	Security Advisory	Jul 20
	RHSA-2021:2170 - Glib2 Se	2	0	21217001	Patches for RHEL 8	Important	8#Server#x86_64	CVE-2021-27219	Security Advisory	Jun 1,
	Run 'dist-upgrade' to instal	1	0	3	Patches for Ubuntu 2004		Ubuntu-2004-x64	N/A		Oct 1,
	Install all available updates	1	0	5	Patches for Ubuntu 2004		Ubuntu-2004-x64	N/A		Oct 1,
	UPDATE: Microsoft .NET Fr	1	0	48001	Patches for Windows	Unspecified	Win8.1, Win2012, Win2. [8]	Unspecified	Feature Pack	Apr 1
	Set up Network Share for O.,	1	0	365015	Patches for Windows	Unspecified	Office 2013	Unspecified	Unspecified	Mar 3

The first column lists the Patch Name. Next to this column we see Vulnerable Devices. There is an entry in the grey box at the top of the column which means a filter has been applied, in this case, to only show patches that are applicable to at least one device in our environment right now. If we turn the filter off by clicking on the "down" triangle to the right of the number "1", we can see all patch content available in BigFix right now.

Go ahead and turn off this filter to see more content. You will notice the number of patches in the top left corner increases when you do.

We will turn this filter back on in a minute during the patching process.

We will set up some filters to look for Patches of a Critical Severity on Windows endpoints only and are applicable to endpoints in our environment right now. The process is below but see if you can apply these filters by looking at the WebUI page. They are pretty intuitive.

- c. Apply a filter to see only Critical patches
 - Click the grey box in the "Severity" column
 - Check the box next to "Critical"
 - Note the number one (1) in the blue oval in the header. This means we have applied a filter to this column
 - Click anywhere on the page to collapse the "picker"
- d. Apply a filter to see only Windows patches
 - Click in the grey box in the "Site Name" column
 - Check the box next to "Patches for Windows"
 - As with patch severity above, note the number one (1) in the blue oval in the header. This means we have applied a filter to this column
 - Click anywhere on the page to collapse the "picker"
- e. Apply a filter to see currently applicable patches
 - Remember that we turned this filter off in step 6.
 - Click the "up" triangle in the grey box in the "Vulnerable Devices" column
 - Note the "1" in the grey box

Also note that the list of patches has decreased

We also have the option to export this information to a file.

			Export	t	Show Summary
View:	20 🔻	<	1 🕶	>	1 of 1 pages

- f. Click on the "Export" button at the top right
- g. Give the report a name
- h. Specify whether you would like to export all items or the items you have selected (if you have selected any items yet)
- i. Specify the type of file you would like to save the report as (CSV, Excel, or PDF)
- j. Choose to open or save the report

Severity		
1 ×		
Crit	tical	1
	portant	
Site Name		٤
1 ×		
Patch	nes for RHEL 8	
Patch	nes for Ubuntu 20	04
Patch	nes for Windows	
✓ Patch	nes for Windows	_
Vulnerable	e Devices	r.





Type for search..

Critical Windows Patches ♡

Site = Patches for Windows, Severity = Criti...

Now we are going to decide which of these patches to deploy. Based on our filters, these are all the Windows Critical patches that are applicable to devices in our environment right now.

If we want to deploy all of them, we simply check the box at the top of the "Patch Name" column and click "Deploy". The number of selected patches appears next to "Deploy"

NOTE: The number of applicable patches in this guide may differ from what you see in your view.

10 patches 🛛 🖓 Reset all filters			
10 Items Selected View Sel	ected only	Deploy (10)	
✓ Patch Name ↑↓	Vulnerab	le Devices 🗅	Open Actions \uparrow_{\downarrow}
Type for search	1	÷	*
MS20-JUL: Cumulative Upd		1	
MS20-AUG: Cumulative Upd		1	
MS21-APR: Cumulative Upd		1	

The sidebar on the right of the page lists the Deployment Summary

- p. This deployment name is "Multiple Action Group" by default, because we are deploying multiple patches, or taking multiple actions with BigFix.
- q. Enter a meaningful name in the grey Deployment Name box. This allows us to tell this deployment apart from other deployments.
- r. If we wish to change the patches being deployed we can click on the "paper and pencil" icon to the right of the number of patches

	Deployment Summary
ve	Deployment Name
s	Windows Patching - Crit - <date></date>
	∧ 10 Patches
	Show all
	Back Next \rightarrow

Click "Next" to continue the deployment process

Select Action. In this step of the patch deployment, we ensure that the correct Action is selected for each patch. Many patch Fixlets contain what is call a "Default Action" meaning this action is selected by default. In the case of a patch, the default action is to deploy the patch. Sometimes however, there is no default action, because there is more than one

viable option for a patch deployment. On this screen, we make sure each patch has an action selected, default or otherwise. We can also remove patches from the list by clicking on the blue trash can icon on the right.

Click "Next" to continue the deployment process. **Select Targets**. In this step of the patch deployment, we

Palactasteb	0	Palast setion	0	Salaat tarrata	Configure			Deployment Summary
	~			Control Institution	O compare			Deployment Name
Patches						Clear All (1	0)@	Windows Patching Crit - «DATE»
MS20-JUL: Cumulative Update for .NET Framework 3	D	efault: Action1 Click here to initiate the o	feployment process.			1	~	 10 Patches
MS20 AUG. Cumulative Update for .NET Framework	D	efault. Action1 Click here to initiate the o	feployment process.				~	Show all
II MS21-APR: Cumulative Update for Windows Server 2	D	efault. Action1 Click here to initiate the o	deployment process.			۵	~	Back
MS21-APR: Servicing Stack Update for Windows Serv	D	efault: Action1 Click here to initiate the o	deployment process.			a	~	
MS21-MAY: Cumulative Update for Windows Server	D	efault: Action1 Click here to initiate the o	feployment process.			Û	×	
MS21-MAY: Servicing Stack Update for Windows Ser	D	efault: Action1 Click here to initiate the o	deployment process.			Ŵ	~	
MS21-JUN: Cumulative Update for Windows Server 2_	D	efault: Action1 Click here to initiate the o	deployment process.			Û	~	
MS21-JUN: Servicing Stack Update for Windows Serv	D	efault: Action1 Click here to initiate the o	feployment process.			a	~	
# MS21-JUL: Cumulative Update for Windows Server 2	D	efault. Action1 Click here to initiate the o	leployment process.				~	
5004947; Cumulative Update for Windows Server 20	D	efault. Action1 Click here to initiate the	feployment process.			۵	~	

choose what endpoints to deploy these patches to. The endpoints with applicable patches will show up in the list. Check the box(es) next to the applicable device(s), or check the box next to "Computer Name" to select all devices Click "Next" to continue the deployment process

HCL SoFy Cu	istomer	Exercis	e Guid	e					
Deploy Patch	Select action		9	Select targets		Configure			Deployment Summary
Target by device Target by group									Deployment Name Windows Patching Crit - <date></date>
1 device 😵 Reset all filters 🚿 No relevant				🛞 Manually tar	pet 🔐 Manage columna	View: 20 -	< 1+ 5	1 of 1 pages	🗸 10 Patches 🧭
1 Item Selected 🛛 🔲 View Selected only									 1 Target
Computer Name 1, Critical Patches	Applicable P	Deployments	Device Type	os	Groups	IP Address	DNS Name	Agent Status	BIGFIX-CLIENT-W
		:							
Type for nearch	· · · ·					21 <u>-</u>	- 22		Back Next ->

NOTE: In this tutorial, the number of endpoints is one, but yours may be different.

Configure. In this step we will specify how and when these patches are to be deployed, how and if the end user will interact, and actions to take after the patches have been deployed. There are five screens, and we will go through each one setting behavior and constraints that correspond to our scenario.

Instructions for each page in the **Configure** step follow, along with settings for each. We will make settings adjustments according to our scenario.

Note: If you wish to exercise more settings than just the one in our exercise, click the paper and pencil icon next to the number of patches on the right and de-select some of the patches from this deployment. This will allow you to perform additional patch deployments and explore other deployment options.

Configure Options: Run This page specifies schedule information for deploying patches. Make the following settings on this page:

- Start: Use today's date and the time of 10:00pm
- End: Use tomorrow's date and the time of 1:00am
- Retry: Check this box to retry failed patches during the patch window. Click the radio button for "Wait until computer has rebooted"

Select patch	Select action	Select targets	Configure	Deployment Summary
201				Deployment Name
lun !	Time Zone			Windows Patching Crit - <date></date>
isers / Iessages /	Client Time - ⑦ Affects all time-related parameters you set on this page			 10 Patches
ffer /	-			→ 1 Target
ost-Action	Start O Immediately ⊙ Immediately ⊙ Immediately ⊙			Configure
	End			H Time Zone
	O No end date (0) (0 (08/03/2021 01:00 AM -			On Client Local Time
				08/02/2021 10:00 PM
				() End 08/07/2021 1:00 AM
	Run between hours ⑦ □ From 08:47 AM ▼ to 07:47 AM ▼			Run member actions Active all members action action group regardless of errors
				A Retry
	Run on selected			Wait until computer has rebooted
	MON TUE WED THU FRI SAT SUN			Users
	Run all the member actions			
	Run all the member actions in the group even on error			Back Deploy
	Run Only When			
	Active Directory Path - matches -			
	Retry			
	on failure, retry 3 times			
	O Wait until 10 minutes ~ between attempts			
	Wait until computer has rebooted			
	Reapply action			
	Reapply action			
	Download			
	Download prerequisite files before the deployment starts (*)			
	Stagger actions			
	Start time over 0 * hours 0 * minutes to reduce betwork is	oad		



Configure Options: Users. This page specifies how the patch deployment behaves according to logged-in users. In our scenario the retail establishments are closed which means that no users are logged in. We will not make any settings changes on this page.

Select pate	sh.	Select action	Select targets	Configure	Deployment Summary
y waarpaa				Unique .	Deployment Name
Run	1	Runaction			Windows Patching Crit - <date></date>
Users	1	Even if there is no logged in user. Display the user interface to specified	users		10 Patchas
Messages	1	O When at least 1 of the specified users is logged in. Display the user inter	face only to those users		V IV Patchua
Offer	1	O Only when no user is logged in			 1 Target
Post-Action	1				Configure
		Select users			
		All users			∧ Users
		O Users in a local session			O Rus antica
					Even if there is no logged user, Display the user inte
		Occount			to specified users
					All users
					- Post-Action
					Back Deploy

Configure Options: Messages. This page allows us to display information about a pending and/or running action for endusers. We will not be using messages, as no users will be logged in.

Select patch	Select action	Select targets	Configure	Deployment Summary
			•	Deployment Name
Run	 Before running action 			Windows Patching Crit - <date></date>
Jsers	Send this as a required action (2)			v 10 Patches
lessages	While running action			
ffer	 Display a running message () 			 1 Target
ost-Action	1			Configure
				V Run
				 Users
				V Post-Action

Configure Options: Offers. This page allows logged-on users to run the patch deployments outside of the "Run" window. We will not be using Offers, as no users will be logged in.

Select pato	h	Select action	Select targets	Configure	Deployment Summary
Run Users	1	Offer Send this as an offer Offer Description			Vendows Patching Crit - <date></date>
Offer	,		- III 2* 40		✓ 1 Target Ø
Post-Action	'				Configure Run Users
		Notify me of others			Rack Deploy ()

Configure Options: Post Action. This page allows us to restart or shut down endpoints after patching.

- s. We will reboot the endpoints after the patch cycle, so select the "Restart the computer" radio button
- t. We will accept the default Title and Text under "Prompt before restarting"
- u. Leave the "Allow me to cancel restart" unchecked. "Me" is the end-user, not the administrator
- v. Set the Deadline for 1 minute from time action completes
- w. Accept the "Restart Automatically" default radio button in the "At Deadline" section.

Select patch	č	Select action	Select targets	Configure	Deployment Summary
Run Usera Messages	After the action O Do nothing O Restart the	n is run computer			Deployment Name Windows Patching Crit - <date> 10 Patches 1 Target</date>
Deel Action	Since down 1	ne computer			Configure
	Prompt before Display messag Title • Restart Now	restarting ge to active users			Run Users Post-Action @ After the action is run
	Text *				Restant the computer
	rout system	aoninininanan is requesting maryou restart your comput	e, Predse save any unsaven work and ther take this action to	esial i you compote.	Back Deploy @
	Allow me t	o cancel restart			
	Set deadline:	1 minute + from time action con	npletes		
	At deadline				
	 Restart Auto 	omaticaBy			
	O Show the av				

Verify your selections as necessary. When you are satisfied with the selections, click the blue "Deploy" button in the right sidebar.

You may now watch the deployment progress in the Deployment window

Windows Patching Crit - <date< th=""><th>></th><th></th><th></th><th></th><th></th><th></th></date<>	>					
Overview Device Results Component Res	ulla					
Deproyment Status					Stop Deployer Behavior	Inn
Nct Reported	20%	48%	40%	20%	Type Start Stork End Time Zone	Other Group Deployment 02 Aug 2021 22:00 07 Aug 2021 00:59 Clami Time Net Geni part
					kesturt Is Offer Details	Hestart keçulmd No
					15 Eftate Innod Isoud By	09 Open 02 Aug 2021 18:05 BFRUser
					Taggeting 1 Battority Torg Components 10 Components	rtal
Page 24	Copyright 202	1 HCL Technologies L	imited, All Rights Rese	rved	Unauthorized	duplication prohibited



aa. Component Results tab. Gives the status of each component/patch in the deployment

iew Device Results Component Results			
Deployments		Q	Sort by: Execution Order + View: 20 +
MS20-JUL; Cumulative Update for .NET Framework 3.5 and 4.7.2 for Windows Server 2019 - Windows S.,	Open		
MS20-AUG: Cumulative Update for .NET Framework 3.5 and 4.7.2 for Windows Server 2019 - Windows	Open		
MS21-APR: Cumulative Update for Windows Server 2019 - Windows Server 2019 - KB5001342 (x64) (Su.,	Open		
MS21-APR: Servicing Stack Update for Windows Server 2019 - Windows Server 2019 - KB5001404 (x64)	Open		
MS21-MAY: Cumulative Update for Windows Server 2019 - Windows Server 2019 - KB5003171 (x64) (Su.,	Open		
MS21-MAY: Servicing Stack Update for Windows Server 2019 - Windows Server 2019 - KB5003243 (x64	Open		

Red Hat Patch Walk-thru Script: Monthly Patch Cycle

2. To perform the demo, navigate to <u>https://hclsofy.com</u> to create an environment, or to the WebUI URL you bookmarked previously.

NOTE: SoFy Solutions do not last forever; they have a maximum life of 24 hours at any given time. If you wait more than 24 hours without extending, the solution will expire, and you will have to create another one (see Extending Deployment Time for more information).

- 3. In this scenario we are going to apply Red Hat Linux patches using BigFix. We will apply some filters to look at Critical and Important Patches for Red Hat, and we will focus on patches that are relevant in our environment right now. As we walk through this demonstration, feel free to work with the filters to see what choices you have, and how the selections change by applying and removing filters.
- 4. We will first log into the WebUI.
 - a. This URL is located on the Solution Content -> HCL BigFix Preview -> General Information -> Open Link Button to the right of "HCL BigFix WebUI
 - b. Use the User ID and Password located on this page to log into the WebUI.

IMPORTANT: The username and the password are both case sensitive!

5.	The first page ye	ou will see in	the BigFix ^v	WebUI is the	Overview	Dashboard.
----	-------------------	----------------	-------------------------	--------------	----------	------------

IGFIX Devices Apps - Deployments Reports					* *
nerview -			Qaciy (edit ooshikaard Add soft.	vere Depky
tumbers 6 Devices managed 2 Critical pactures with septicative devices 0 Software packages 0 Castern teales 0 Bassillees 4 Deployments that are currently open		Patch Severify			A8.08 +
eployments in the last 30 days					Only Mine
4 Deployments	Multiple Action Group		Croup Patch	0%.	15
	BigRix Server: Register Download Plug-In for Software Distribution		Single Other	10054	15
	Rename Linux Computer - hostname - higfs-parch-demo		Single Other	0%*	0 🖵
			Starts Office	III of	15
Open Figliwi Stagowi	ReStart WebUI service		a the case.		

Take a minute to look around and see what information is available on this page. This is your "at-a-glance" information center for managing your infrastructure. This is data available to you without having to initiate an endpoint scan or run a report against a database. These tiles are customizable as well – you can re-arrange them or gather different data than what is currently visible.

6. From the WebUI Overview Dashboard, Click Apps -> Patch.

💽 BIGFIX

D Copyright HCL Technologies Limited 2021, All Rights Re

BFXUser

Password

Remember Me





On this page we see at a glance, the patches that are applicable in our environment right now. The BigFix Agent has already evaluated this current content and determined that it is applicable to the device on which it is running. Again, we did not have to initiate a scan or run a report – the agent already knows.

0	BIGFIX Devices App	os ∽ Deployments Rep	orts							
Pa	tch Select a favorite r	eport 👻 Save Re	port						Export Sho	ow Summary
73	patches 🛛 🖓 Reset all filters							View: 20 -	< 1 • > 1/	of 4 pages
	Patch Name 1	Vulnerable Devices	Open Actions 14	ID	Site Name	Severity	Software	CVE IDs	Category	Rek
	Type for search	1 ‡	:				Type for search	Type for anarch		ma
	Multiple-Package Baseline	4	0	101	Patches for RHEL 8	whore .	N/A	N/A		
	Enable the Multiple-Packa.,	a	0	201	Patches for RHEL 8	ADDINF.	N/A	N/A		
	Import RPM-GPG-KEY-redh	4	0	301	Patches for RHEL 8		N/A	N/A		
	dof command with RHSM	4	0	401	Patches for RHEL 8		N/A	N/A		
	RHSA-2021:2569 - Libxml2	4	0	21256901	Patches for RHEL 8	Moderate	8#Servet#x86_64	CVE-2021-3516, CVE-2021	Security Advisory	Jun 2
	RH84-2021.2572 - Systemd	4	0	21257201	Patches for RHEL 8	<unspecified></unspecified>	8#Server#x86_64	N/A	Bug Fix Advisory	Jun 2
	RHSA-2021-2574 - Rpm Se_	4	0	21257401	Patches for RHEL 8	Moderate	8#Server#x86_64	CVE-2021-20271	Security Advisory	Jun 2
	RHSA-2021.2575 - Lz4 Sec.,	4	0	21257501	Patches for RHEL 8	Moderate	8#Server#x86_64	CVE-2021-3520	Security Advisory	Jun 2
	RHBA-2021:2577 - Subscri	4	0	21257701	Patches for RHEL 8	<unspecified></unspecified>	8#Server#x86_64	N/A	Bug Fix Advisory	Jun 2
	RHBA-2021:2581 - Openid	4	0	21258101	Patches for RHEL 8	<unspecified></unspecified>	8#Server#x86_64	N/A	Bug Fix Advisory	Jun 2
	RHSA-2021:2717 - System_	4	0	21271701	Patches for RHEL 8	Important	8#Server#x86_64	CVE-2021-33910	Security Advisory	Jul 20
	RHSA-2021:2170 - Glib2 Se	2	0	21217001	Patches for RHEL 8	important	8#Server#x86_64	CVE-2021-27219	Security Advisory	Jun 1
	Run "dist-upgrade" to instal	1	0	3	Patches for Ubuntu 2004		Ubuntu-2004-x64	N/A		Oct 1,
	Install all available updates	1	0	5	Patches for Ubuntu 2004		Ubuntu-2004-x64	N/A		Oct 1,
	UPDATE: Microsoft .NET Fr	1	0	48001	Patches for Windows	Unspecified	Win8.1, Win2012, Win2. [8]	Unspecified	Feature Pack	Apr 1
	Set up Network Share for O.,	1	0	365015	Patches for Windows	Unspecified	Office 2013	Unspecified	Unspecified	Mar 3

The first column lists the Patch Name. Next to this column we see Vulnerable Devices. There is an entry in the grey box at the top of the column which means a filter has been applied, in this case, to only show patches that are applicable to at least one device in our environment right now. If we turn the filter off by clicking on the "down" triangle to the right of the number "1", we can see all patch content available in BigFix right now.

7. Go ahead and turn off this filter to see more content. You will notice the number of patches in the top left corner increases when you do.

We will turn this filter back on in a minute during the patching process.

8. We will set up some filters to look at Red Hat endpoints only for Patches of a Critical and Important Severity and are applicable to endpoints in our environment right now. The process is below but see if you can apply these filters by looking at the WebUI page. They are pretty intuitive.

PLEASE NOTE: the order of our filtering is changed for this exercise. In this exercise we are filtering by operating system first. This is purely for the purposes of the following exercise, "Out-of-Band Patching Scenario." The reason for filtering operating system first is to ensure we do not select all available patches for this exercise, so we have patches available for the next exercise.

- a. Apply a filter to see only Critical and Important patches
 - Click the grey box in the "Severity" column
 - Check the boxes next to "Critical" and "Important"
 - Note the number two (2) in the blue oval in the header. This means we have applied a filter to this column
 - Click anywhere on the page to collapse the "picker"
- b. Apply a filter to see only Red Hat patches
 - Click in the grey box in the "Site Name" column
 - Check the box next to "Patches for RHEL8"
 - As with patch severity above, note the number one (1) in the blue oval in the header. This means we have applied a filter to this column
 - Click anywhere on the page to collapse the "picker"
- c. Apply a filter to see currently applicable patches
 - Remember that we turned this filter off in step 6.
 - Click the "up" triangle in the grey box in the "Vulnerable Devices" column
 - Note the "1" in the grey box

Also note that the list of patches has decreased

9. We also have the option to export this information to a file.



- a. Click on the "Export" button at the top right
- b. Give the report a name
- c. Specify whether you would like to export all items or the items you have selected (if you have selected any items yet)
- d. Specify the type of file you would like to save the report as (CSV, Excel, or PDF)
- e. Choose to open or save the report

Severity
2 ×
Critical
- Important
Site Name
1 ×
Patches for RHEL 8
Patches for Ubuntu 2004
Patches for Windows
Vulnerable Devices \uparrow_{\downarrow}
1 +





Patch	Critical & Important RHEL P 🔹	Update	Save New

If you click "Update" you will overwrite the existing report with the new filters. If you click "Save New" you will be prompted to enter details about a new report

You can also return to the original report by clicking "Reports" in the menu bar at the top, and selecting your report from the list

0	IGFIX	Devices	Apps	~	Deplo	oyment	is	Reports			
Rej	ports										
2 rej	ports 🗌 🔪	/iew favorite	only 🎔								
	Report Nam	ie ^↓		Description							
	Type for s	search		Ту	pe for s	earch					
	Critical Wine	dows Patche	s♡	Site =	Patche	es for V	Vindov	vs, Sever	ity = Ci	riti	I
	Critical & Im	portant RHE	♡	Site =	Patche	es for F	HEL8	, Severity	= Criti	cal	I

- 11. Now we are going to decide which of these patches to deploy. Based on our filters, these are all the Red Hat Critical and Important patches that are applicable to devices in our environment right now.
- 12. If we want to deploy all of them, we simply check the box at the top of the "Patch Name" column and click "Deploy". The number of selected patches appears next to "Deploy"

2 Items Selected View Selected only Deploy (2) Patch Name 1 Vulnerable Devices 1 Open Actions 1 Type for search 1 1 RHSA-2021:2717 - System 4 0	2 patches 🛛 🖓 Reset all filters			
Patch Name ¹	2 Items Selected View Selected	cted only	Deploy (2)	
Type for search 1 + Image: RHSA-2021:2717 - System 4 0	Patch Name 1	Vulneral	ble Devices \uparrow_{\downarrow}	Open Actions 🐴
RHSA-2021:2717 - System 4 0	Type for search	1	*	* *
	RHSA-2021:2717 - System		4	0
RHSA-2021:2170 - GIID2 Se 2 0	RHSA-2021:2170 - Glib2 Se		2	0

NOTE: In this tutorial, the number of applicable patches is two, but yours may be different.

PLEASE MAKE SURE YOU HAVE AT LEAST ONE PATCH OTHER THAN THE ONES YOU HAVE SELECTED FOR THE NEXT EXERCISE. The patch for the next excersise does not have to be Critical or Important, but if all you have available are Critical and Import patches, de-select one of them for use in the next exercise

- 13. The sidebar on the right of the page lists the Deployment Summary
 - a. This deployment name is "Multiple Action Group" by default, because we are deploying multiple patches, or taking multiple actions with BigFix.
 - b. Enter a meaningful name in the grey Deployment Name box. This allows us to tell this deployment apart from other deployments.
 - c. If we wish to change the patches being deployed we can click on the "paper and pencil" icon to the right of the number of patches

- 14. Click "Next" to continue the deployment process
- 15. **Select Action**. In this step of the patch deployment, we ensure that the correct Action is selected for each patch. Many patch Fixlets contain what is call a "Default Action" meaning this action is selected by default. In the case of a patch, the default action is to deploy the patch. Sometimes however, there is no default action, because there is more than one viable option for a patch deployment. On this screen, we make sure each patch has an action

selected, default or otherwise. We can also remove patches from the list by clicking on the blue trash can icon on the right.

Select patch	Select action	Select targets	Configure		Deployment Summary
2 Patches				Clear All (2) 🗊	Deployment Name RHEL Patching - Crit/Imp - <date< th=""></date<>
RHSA-2021:2170 - Glib2 Security	And Bug Fix Update Default: Action1 Click here to start t	he deployment process and to update the current packages.		1	 2 Patches
II RHSA-2021:2717 - Systemd Secu	rity Update - Red Ha Default: Action1 Click here to start t	he deployment process and to update the current packages.		•	RHSA-2021:2170 - GIIb2 Se. Default action RHSA-2021:2717 - Systemd Default action
					✓ 2 Targets

- 16. Click "Next" to continue the deployment process.
- 17. **Select Targets**. In this step of the patch deployment, we choose what endpoints to deploy these patches to. The endpoints with applicable patches will show up in the list.
- 18. Check the box(es) next to the applicable device(s), or check the box next to "Computer Name" to select all devices
- 19. Click "Next" to continue the deployment process

HCL	SoFy Cι	ustomer	Exercis	e Guid	le						
eploy Patch					a laster to		0.000			Deployment Summar	у
Target by device Target by grow	up :	Select action		9	Select targets		Contrigure			Deployment Name RHEL Patching - Crit/Imp	<date></date>
2 devices 🛛 🖓 Reset all filters 🚿 🕅	vo relevant				🚯 Manually torg	et 🔐 Manage columns	View: 20 -	< 1 • 5	1 of 1 pages	~ 2 Patches	Ø
2 Items Selected 🛛 🔲 View Sel	ected only									 2 Targets 	
Computer Name 1.	Critical Patches	Applicable P 1	Deployments	Device Type	os	Groups	IP Address	DNS Name	Agent Status	bigfix-relay-rh8	0
Type for nearch		:	\$					<u>]]</u>		Light-citetering	
Digfix-relay-rh8	No	12	9	Server	Red Hat Enterprise 8	BigFix Relays, Linu	10.72.133.109	bigfix-relay-rh8	Installed	Back	Next \rightarrow
biofix-client-rh8	No	12	8	Server	Red Hat Enterorise 8	Linux Devices, Nati	10 72 5 35	biofractient-rb9	Installed	a second se	

NOTE: In this tutorial, the number of endpoints is one, but yours may be different.

20. **Configure**. In this step we will specify how and when these patches are to be deployed, how and if the end user will interact, and actions to take after the patches have been deployed. There are five screens, and we will go through each one setting behavior and constraints that correspond to our scenario.

Instructions for each page in the **Configure** step follow, along with settings for each. We will make settings adjustments according to our scenario.

Note: If you wish to exercise more settings than just the one in our exercise, click the paper and pencil icon next to the number of patches on the right and de-select some of the patches from this deployment. This will allow you to deploy the other patches to explore other deployment options

Configure Options: Run This page specifies schedule information for deploying patches. Make the following settings on this page:

Our settings for this patch deployment will be a little different, just to show you different options for scheduling deployments. Last time, we used a defined start and end day and time. This time, we will use a window of time on specific days. The result will be the same, it's just another way of getting there!

- Start: Leave this set at "Immediately"
- End: Change the date to tomorrow, and the time to 1:00am
- Check the "Run between hours" checkbox, and enter 10:00pm to 12:30am
- Run on selected: Select the days of the week corresponding to today and tomorrow
- Retry: Check this box to retry failed patches during the patch window. Accept the default "Wait until 10 minutes between attempts"
- Download. Check the box to download prerequisite files. This ensures that at 10:00pm, we are patching and not just starting to download patch content.

Note the "End" time of 1:00am. This time could have been anything between 12:31am tomorrow (the end of our window) and 9:59pm tomorrow night – because if we had made it later than that, the "Run between hours" would have applied tomorrow. That's why we had to change the end day to tomorrow

The screen image of these settings is on the next page.



Deploy Patch

Select patch	Select action	Select targets	Configure	Deployment Summary
				Deployment Name
Run 🖌	Time Zone			RHEL Patching - Crit/Imp - <date></date>
Users /	Client Time + 💿			2 Patchag
Messages 🖌	Affects all time-related parameters you set on this page			2 ratores
Offer 🖌				 2 Targets
Post-Action	Start			Configure
				Run
	End			Time Zone
	O No end date ⑦			On Client Local Time
				Immediately
				08/05/2021 1:00 AM
	Run between hours ⑦			Run between 10:00 PM to 12:30 AM
	Prom 1000 PM • 10 1230 AM •			🛗 Run on Wednesday, Thursday
	and the second se			Run member actions
				action group regardless of errors
				On failure, retry 3 times
	Bun all the member actions			Wait until 10 minutes betwee attempts
	Run all the member actions in the group even on error			Download Active download required file
				IGW
	Run Only When			Vusers.
	Active Directory Path + matches +			 Post-Action
	No. 1997			Back Durlay O
	Retry On failure, retry 3 * times			Dorw Dorwy ()
	Wait until 10 minutes - between attempts			
	O wait until computer has reheated			
	Beanly action			
	Reapply action			
	Download			
	Download prerequisite files before the deployment starts 🕜			
	Stagger actions			
	Start time over 0 thours 0 thours 0			

Configure Options: Users. This page specifies how the patch deployment behaves according to logged-in users. In our after-hours scenario it doesn't matter if users are logged in or not. We will not make any settings changes on this page.

Select nato	h	Select action	Select targets		Deployment Summary
				• •••••	Deployment Name
tun	1	Run action			Multiple Action Group
lsers	1	Even if there is no logged in user. Display the user interface to specified	users		2 Patches
ressages	1	O when at least 1 of the specified users is logged in. Display the user inte			
Offer	1	O Only when no user is logged in	✓ 4 Targets		
ost-Action	1				Configure
		Select users			🗸 Run
		All users			~ Users
		O Users in a local session			G. Run action
		O Users in a group			Even if there is no logged i user. Display the user inter to specified users
					출 Selected users All users
					 Post-Action
					Park Park

Configure Options: Messages. This page allows us to display information about a pending and/or running action for endusers. We will not be using messages, as no users will be logged in.

) Select patch		Select action	Select targets	Configure	Deployment Summary
					Deployment Name
tun	Before running	action			Multiple Action Group
lsers	/ Send this a	s a required action (?)			 2 Patches
Messages	While running a	ction			d Toronto
ffer	🖌 📋 Display a ru	inning message 🕐			 + Targets
ost-Action	1				Configure
					U Run
					users Users
					 Post-Action
					Tank Destaur

Configure Options: Offers. This page allows logged-on users to run the patch deployments outside of the "Run" window. We will not be using Offers, as no users will be logged in.

Select patch	Select action	Select targets	Configure	Deployment Summary
Antonio Contonio	0			Deployment Name
Run	Offer			Multiple Action Group
Users Messages	Send this as an offer ⑦ Offer Description			✓ 2 Patches
Offer		$- \parallel z^{s} = \omega$		 4 Targets
Post-Action				Configure
				🗸 Run
				Vusers
	Notify me of offers.			C Post-Action
				Back Deploy (

Configure Options: Post Action. This page allows us to restart or shut down endpoints after patching.



- a. We will not reboot our servers during this window.
- b. Leave the default "Do nothing" radio button selected.

Select patch	h	Select action	Select targets	Deployment Summary
Run Users Messages Offer		After the action is run		Deployment Name Multiple Action Group 2 Patches 4 Targets
PUSPACION				 Run Users Post-Action @ After the action is run Do nothing Back Deploy (

- 21. Verify your selections as necessary. When you are satisfied with the selections, click the blue "Deploy" button in the right sidebar.
- 22. You may now watch the deployment progress in the Deployment window

Not Reported					Behavior	
	20%	43%	60%	80%	Type Start 199% End Time Zone Pie-cache Is Offer	Other Group Deplo Inneedlately D6 Aug 2021 00:20 Client Time Required No
					Details ID Estate Issued Issued By	110 Open 02 Aug 2021 18:4 0/'XUser
					Targeting 4 Statically Targeter Components 2 Components	

There is some useful information on this page:

a. Stop Deployment. You can click on this button on the right to stop the deployment. Any currently running patch installations will continue to run, but subsequent patches will not install.

Stop	Dep	loyment

Behavior	
Туре	Other Group Deployment
Start	Immediately
End	06 Aug 2021 00:29
Time Zone	Client Time
Pre-cache	Required
Is Offer	No

b. Overview tab. Shows the progress of the deployment.

ultiple Action Group					
verview Device Results Component Resu	ulta				
Deployment Status					
Not Reported					
0%	20%	40%	80%	80%	10

c. Device Results tab. Gives an overview of the devices in the deployment and their current status.

Note: When we click on the Device Results" tab, we may see messages such as "Constrained by distribution time" or "Constrained by distribution date." This has to do with the fact that the patch distribution is scheduled in the future. It is expected, not an error.

Multiple Action Group		
Overview Device Results Component Results		
4 Results		Q Buards
		Status: All + Sort by: Status + View; 20 + 📋 1/1 4
Device Name	Last Seen	Status
bigfix-relay-rh8	9 minutes ago	Constrained By Time Range
bigfix-webui	9 minutes ago	Constrained By Time Range
bigfix-client-rh8	9 minutes ago	Constrained By Time Range
bigfix-server	9 minutes ago	Constrained By Time Range
	First Previous 1 Next Last	

d. Component Results tab. Gives the status of each component/patch in the deployment

Multiple Action Group Overview Device Results C	component Results		
2 Deployments			Q Sort by: Execution Order + View: 20 + 📕 1/1 🕩
RHSA-2021:2717 - Syste	md Security Update - Red Hat Enterprise Linux 8 (x86_64)	Open	
RHSA-2021:2170 - Glib2	Security And Bug Fix Update - Red Hat Enterprise Linux 8 (x86_64)	Open	
Page 36	Copyright 2021 HCL Technologies	s Limited, All Rights Reserved	Unauthorized duplication prohibited


Red Hat Patch Walk-thru Script: Out-of-Band Patching Scenario

We are already logged into the WebUI and are already familiar with the layout.

Sometimes there are patches that must be applied outside of normal maintenance windows, or "out of band"

23. From the WebUI Overview Dashboard, Click Apps -> Patch.



Because this is an out-of-band patch scenario, our approach might be different. For instance, we might know the name of the patch we want to deploy, or we might know the name of the server that needs the patch.

24. Let us look for the patch by name first.

On this page we see, at a glance, the patches that are applicable in our environment right now. The BigFix Agent has already evaluated this current content and determined that it is applicable to the device on which it is running. Again, we did not have to initiate a scan or run a report – the agent already knows.

66 p	atches 🛛 🖓 Reset all filters								View: 20 -	< 1 - 10	of 4 pages
	Patch Name 1	Vulnerable De	vices 14	Open Actions 1	ID	Site Name	Severity	Software	CVE IDs	Category	Rele
	Type for neurch	1	\$	*				Type for search	Type for search		mn
	Multiple-Package Baseline		4	0	101	Patches for RHEL 8		N/A	N/A		
	Enable the Multiple-Packa		4	0	201	Patches for RHEL 8		N/A	N/A		
	TROUBLESHOOTING: RHE		4	0	300	Patches for RHEL 8		N/A	N/A		
	Import RPM-GPG-KEY-redh.		4	0	301	Patches for RHEL 8		N/A	N/A		
	dnf command with RHSM		4	0	401	Patches for RHEL 8		N/A	N/A		
	RHSA-2021:2569 - Libxml2_		4	0	21256901	Patches for RHEL 8	Moderate	8#Server#x86_64	CVE-2021-3516, CVE-2021	Security Advisory	Jun 2
	RHSA-2021:2574 - Rpm Se_		4	0	21257401	Patches for RHEL 8	Moderate	8#Server#x86_64	CVE-2021-20271	Security Advisory	Jun 2
	RHSA-2021:2575 - Lz4 Sec		4	0	21257501	Patches for RHEL 8	Moderate	8#Server#x86_64	CVE-2021-3520	Security Advisory	Jun 2
	RHBA-2021:2577 · Subscri		4	0	21257701	Patches for RHEL 8	<unspecified></unspecified>	8#Server#x86_64	N/A	Bug Fix Advisory	Jun 2
	RH8A-2021:2581 - OpenId		4	0	21258101	Patches for RHEL 8	<unspecified></unspecified>	8#Server#x86_64	N/A	Bug Fix Advisory	Jun 2
	RHSA-2021:2170 - Glib2 Se		2	1	21217001	Patches for RHEL 8	Important	8#Server#x86_64	CVE-2021-27219	Security Advisory	Jun 1,
	RHBA-2021-2572 - Systemd		2	0	21257201	Patches for RHEL 8	«Unspecified»	8#Server#x86,64	N/A	Bug Fix Advisory	Jun 2

The first column lists the Patch Name. Next to this column we see Vulnerable Devices. There is an entry in the grey box at the top of the column which means a filter has been applied, in this case, to only show patches that are applicable to at least one device in our environment right now. Because we are dealing with an applicable patch, we will leave this filter on.

25. We have a patch that shows as Relevant at the time of writing this tutorial, but your results will be different. From this window, apply a filter, similar to the last exercise, to look for Patches for Red Hat endpoints only. The process is below but see if you can apply these filters by looking at the WebUI page. They are pretty intuitive.

Red Hat Endpoints:

- Expand Operating System
- Check the box next to "Red Hat Enterprise Linux".



26. Now we are going to decide which of these patches to deploy as an "out of band" patch. Obviously if this were a real production environment, we would already have this information. For our demonstration, we will choose one patch from the list that we did not deploy in the previous example (note: your content may be different from what is displayed in the image below):

Pat	select a favorite of	eport +	Save Rep	ort							Export Sh	iow Summary
14 p	atches 🔗 Reset all filters									View: 20 💌	< 1 • > 1	of 1 pages
1 Ite	m Selected 📃 View Selec	ted only Deploy	(1)									
	Patch Name 14	Vulnerable Device	15 T ₄	Open Actions		D	Site Name	Severity	Software	CVE IDs	Category	Rel
	Type for search .	1	\$:		(1 ×		Type for search	Type for search		m
	RHSA-2021:2717 · System		2		1	21271701	Patches for RHEL 8	Important	8#Server#x86_64	CVE-2021-33910	Security Advisory	Jul 20
	RHSA-2021:2569 - Libxml2		4		o	21256901	Patches for RHEL 8	Moderate	8#Server#x86_64	CVE-2021-3516, CVE-2021	Security Advisory	Jun 2
	RHBA-2021.2572 - Systemd		2		a	21257201	Patches for RHEL 8	Unspecified>	8#Server#x86_64	N/A	Bug Fix Advisory	Jun 2

27. Click "Deploy" to deploy this patch

- 28. The sidebar on the right of the page lists the Deployment Summary
 - a. This deployment name is the same as the patch we are deploying, since it is a single patch.
 - b. We can edit the name, maybe add "OOB" to the name, or leave the name as-is.

Deployment Summary



- 29. Click "Next" to continue the deployment process
- 30. **Select Targets**. In this step of the patch deployment, we choose what endpoints to deploy these patches to. The endpoints with applicable patches will show up in the list.
- 31. Check the box(es) next to the applicable device(s), or check the box next to "Computer Name" to select all devices



32. Click "Next" to continue the deployment process

Select patch		Select action		0	Select targets		Configure			Deployment Summary	
Triant bu davies		0					0			Deployment Name	onusitu I
4 devices V Reset al filters (20)	io relevant				(6) Manually targ	et 18 Manage columns	View: 20 -	< 1 • >	1 of 1 pages	 1 Patch 	ecuny r
2 Items Selected 📃 View Sel	icted only									A 2 Targets	
Computer Name 1	Critical Patches	Applicable P 4	Deployments	Device Type	OS	Groups	IP Address	DNS Name	Agent Status	bigfix-relay-rh8	٥
										biofix client sho	
Type for search.		:	:		•					bigfix-client-rh8	0
Type for smarch.	No	 12	÷	Server	• Red Hat Enterprise 8	BigFix Relays, Linu	10.72.133.109	bigfix-relay-rh8	Installed	bigfix-client-rh8 Back	o lext →

NOTE: We could also choose to "Manually Target Devices" by clicking on the words "Manually target". In the resulting box we could enter the device name. This is especially useful if you have the name(s) of the device(s) already and a lot of devices in the list. We can target by name, IP Address, or DNS Name. This makes sense in our example, because we might receive instructions to distribute "Patch123" to "EndpointABC" and is this case we could enter the name rather than search the list.

33.	Configure. In this step we will specify how and when these patches are to be deployed, how and if the end user will
	interact, and actions to take after the patches have been deployed. There are five screens, and we will go through
	each one setting behavior and constraints that correspond to our scenario.

Instructions for each page in the **Configure** step follow, along with settings for each. We will make settings adjustments according to our scenario.

Note: If you wish to exercise more settings than just the one in our exercise, click the paper and pencil icon next to the number of patches on the right and de-select some of the patches from this deployment. This will allow you to perform additional patch deployments and explore other deployment options.

Manually Target Devices By

IP Address

Name

DNS

Cancel

Configure Options: Run This page specifies schedule information for deploying patches. Make the following settings on this page:

- a. Start: Use the default of "Immediately"
- b. End: Use the end date of a week from today
- c. Retry: Check this box to retry failed patches during the patch window, and accept the other defaults
- d. Download: Check this box to download the required files now in case there is a delay in starting the patching.

Select patch	Select action	Select targets	Configure Deployment Summary
A	9	Sec. 1	Deployment Name
Run 🧪	Time Zone		RHSA-2021-2569 - Libxml2 Sect
Users / Messages /	Client Time - ③ Affects all time-related parameters you set on this page		~ 1 Patch
offer #			v 2 Targets
Doct Action	Start		Configure
e var richter i	Immediately (2) O D8/04/2021 08/46 PM	2	a Bun
	End		Time Zone On Client Local Time
	O No end date () () 08/11/2021 08:46 PM	T.	() Start
			() End
	Bun between hours		08/11/2021 8:48 PM ∧ Retry
	□ From 08:46 AM ✓ 10:46 AM ✓		On failure, retry 3 times Wait until 10 minutes be attempts
			Download Active download require
	Run on selected		now
	MON (TUE) (WED (THU) (FRI) (SAT) (SUN)		Users Users
			Post-Action
	Run Only When		
	Active Directory Path - matches -		Back Deploy
	Retry		-
	On failure, retry 3 🛟 times		
	Wait until 10 minutes • between attempts		
	Wait until computer has reported		
	Reapply action		
	Reapply action		
	Download		
	Download prerequisite files before the deployment starts ⊘		
	Stagger actions		
	Start time over 0 💲 hours 0 💲 minutes to reduce net	twork load	

e. The only other setting we will make is to restart the computer after patching. You will set this on the **Configure: Post Action** page:

Select patch	Select action	Select targets	Configure	Deployment Summary
Run	After the action is run			Deployment Name RHSA-2021:2569 - Libxml2 Security (
Users 🎤	Do nothing			v 1 Patch 😢
Messages /	Restart the computer Shut down the computer			🐱 2 Targets 😢
Post-Action				Configure v Run
h	Convright 2021 HCL Toch	nologies Limited All Rights Re	served	Unauthorized duplication pr



- 34. Verify your selections as necessary. When you are satisfied with the selections, click the blue "Deploy" button in the right sidebar.
- 35. You may now watch the deployment progress in the Deployment window

Dapkoyment Status			Stop Depkyment
			Bohavior Type Other Single Deployment
Not Reported			Diart Invediately
P5 2051	40% 0.0%	ios.	Time Zené Cliest Time
			is Offer No
			Dotails 133
			State Open
			intervel 04 Aug 2021 21:11 Intervel By IRFACtore
			Targeting
			Source
			RHSN-2021 (2549 - Likovni2 Security Update - Red Hat Enterpri (186,54)
ere is some useful information o	on this page:	Stop Deployment	
		Bobayior	-
a. Stop Deployment butto	on. You can click on this button on	Type	Other Single Deployment
the right to stop the de	eployment.	Stort	Immediately
5 1	. ,	Sidi i	11 Aug 2021 20:45
		End	11 Aug 2021 20:45
		Time Zone	Client Time
		Pre-cache	Required
b. Overview tab. Shows t	he progress of the deployment.	Is Offer	No
b. Overview tab. Shows t A-2021:2569 - Libxml2 Security Update - Red Hat	he progress of the deployment. Enterprise Linux 8 (x86_64)	Is Offer	No
b. Overview tab. Shows t A-2021:2569 - Libxml2 Security Update - Red Hat View Device Results Deployment Status	he progress of the deployment. Enterprise Linux 8 (x86_64)	Is Offer	No
b. Overview tab. Shows t A-2021:2569 - Libxml2 Security Update - Red Hat View Device Results Deployment Status	he progress of the deployment. Enterprise Linux 8 (x86_64)	Is Offer	No
b. Overview tab. Shows t A-2021:2569 - Libxml2 Security Update - Red Hat Vew Device Results Deployment Status	he progress of the deployment. Enterprise Linux 8 (x86_64)	Is Offer	No 40%
b. Overview tab. Shows t A-2021:2569 - Libxml2 Security Update - Red Hat Vew Device Results Beployment Status Running Using Using C. Device Results tab. Giv	he progress of the deployment. Enterprise Linux 8 (x86_64)	Is Offer	NO 40%
b. Overview tab. Shows t A-2021:2569 - Libxml2 Security Update - Red Hat New Device Results Deployment Status C. Device Results tab. Giv	he progress of the deployment. Enterprise Linux 8 (x86_64) 20% res an overview of the devices in the d	Is Offer 30%	No 40%
b. Overview tab. Shows t SA-2021:2569 - Libxml2 Security Update - Red Hat Deployment Status C. Device Results tab. Giv SA-2021:2569 - Libxml2 Security Update - Red Hat rivew Device Results	he progress of the deployment. Enterprise Linux 8 (x86_64) 20% Yes an overview of the devices in the d Enterprise Linux 8 (x86_64)	Is Offer 30%	No 40%
b. Overview tab. Shows t SA-2021:2569 - Libxml2 Security Update - Red Hat Deployment Status C. Device Results tab. Giv SA-2021:2569 - Libxml2 Security Update - Red Hat rivew Device Results	he progress of the deployment. Enterprise Linux 8 (x86_64)	Is Offer 30%	NO 40%
b. Overview tab. Shows t	he progress of the deployment. Enterprise Linux 8 (x86_64) 20% Yes an overview of the devices in the d Enterprise Linux 8 (x86_64)	Is Offer 30%	No 40% their current status.
b. Overview tab. Shows t SA-2021:2569 - Libxml2 Security Update - Red Hat Deployment Status C. Device Results tab. Giv SA-2021:2569 - Libxml2 Security Update - Red Hat rview Device Results SA-2021:2569 - Libxml2 Security Update - Red Hat rview Device Results	he progress of the deployment. Enterprise Linux 8 (x86_64) 20% Ves an overview of the devices in the d Enterprise Linux 8 (x86_64)	Is Offer 30% eployment and	No 40% their current status.
b. Overview tab. Shows t	he progress of the deployment. Enterprise Linux 8 (x86_64) 20% Ves an overview of the devices in the d Enterprise Linux 8 (x86_64)	Is Offer 30% eployment and Charling Charling	No 40% their current status.

Ubuntu Patch Walk-thru Script: Weekly Patch Cycle

36. To perform the demo, navigate to <u>https://hclsofy.com</u> to create an environment, or to the WebUI URL you bookmarked previously.

NOTE: SoFy Solutions do not last forever; they have a maximum life of 24 hours at any given time. If you wait more than 24 hours without extending, the solution will expire, and you will have to create another one (see Extending Deployment Time for more information).

- 37. In this scenario we are going to apply Ubuntu patches using BigFix. We will apply some filters to look at Patches for Ubuntu, and we will focus on patches that are relevant in our environment right now. As we walk through this demonstration, feel free to work with the filters to see what choices you have, and how the selections change by applying and removing filters.
- 38. We will first log into the WebUI.
 - a. This URL is located on the Solution Content -> HCL BigFix Preview -> General Information -> Open Link Button to the right of "HCL BigFix WebUI
 - b. Use the User ID and Password located on this page to log into the WebUI.

IMPORTANT: The username and the password are both case sensitive!

39. The first p	page you will see in the BigFix WebUI	is the Overview Dashboard.
-----------------	---------------------------------------	----------------------------

(w -			Qacity -	edik pashboard 🛛 Add soft	vere Depk
Hers C Doriver managed 2 Orlister particular devices 9 Orlanter particular devices 9 Castern tasks 9 Datatins 9 Datatins 4 Deployments that are currently open		Patch Severity			ALOS -
loyments in the last 30 days				1	I Crity Min
	Multiple Action Group BioRix Server: Recister Download Plusin for Software Distribution		Group Putch Single Other	0%.✔ 100%.✔	1
	Rename Linux Computer - hostname - higfo-patch-demo		Single Other	054	0
tom Figlind Report	ReSter WebUI service		Single Other	0€.≁	1
	Patch +	Popular Pisade patrice digitigati in the basil Strukgo Name			Patch • Deployment to

Take a minute to look around and see what information is available on this page. This is your "at-a-glance" information center for managing your infrastructure. This is data available to you without having to initiate an endpoint scan or run a report against a database. These tiles are customizable as well – you can re-arrange them or gather different data than what is currently visible.

40. From the WebUI Overview Dashboard, Click Apps -> Patch.

🜔 BIGFIX

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BFXUser

Password

Remember Me





On this page we see, at a glance, the patches that are applicable in our environment right now. The BigFix Agent has already evaluated this current content and determined that it is applicable to the device on which it is running. Again, we did not have to initiate a scan or run a report – the agent already knows.

Pa	tch Select a favorite r	eport • Save	Report						Export Show	v Summary
73 (oatches 🔗 Reset all filters							View: 20 -	< 1 • > 1ot	f4pages
	Patch Name 1	Vulnerable Devices	Open Actions	ID	Site Name	Severity	Software	CVE IDs	Category	Rele
	Type for search	1 ‡	:				Type for search	Type for search		mn
	Multiple-Package Baseline		4 0	101	Patches for RHEL 8	-honex	N/A	N/A	whones -	
	Enable the Multiple-Packa		4 0	201	Patches for RHEL 8	*honite	N/A	N/A		
	Import RPM-GPG-KEY-redh		4 0	301	Patches for RHEL 8		N/A	N/A		
	dof command with RHSM		4 0	401	Patches for RHEL 8		N/A	N/A		
	RHSA-2021:2569 - Libami2		4 0	21256901	Patches for RHEL 8	Moderate	8#Server#x86_64	CVE-2021-3516, CVE-2021	Security Advisory	Jun 2
	RH8A-2021.2572 - Systemd		4 0	21257201	Patches for RHEL &	<unspecified></unspecified>	@#Server#x86_64	N/A	Bug Fix Advisory	Jun 2
	RHSA-2021:2574 - Rpm Se		4 0	21257401	Patches for RHEL 8	Moderate	8#Server#x86_64	CVE-2021-20271	Security Advisory	Jun 2
	RHSA-2021:2575 - Lz4 Sec.,		4 0	21257501	Patches for RHEL 8	Moderate	8#Server#x86_64	CVE-2021-3520	Security Advisory	Jun 2
	RHBA-2021:2577 · Subscri		4 0	21257701	Patches for RHEL 8	<unspecified></unspecified>	8#Server#x86_64	N/A	Bug Fix Advisory	Jun 2
	RHBA-2021:2581 - Openid		4 0	21258101	Patches for RHEL 8	<unspecified></unspecified>	8#Server#x86_64	N/A	Bug Fix Advisory	Jun 2
	RHSA-2021:2717 - System_		4 0	21271701	Patches for RHEL 8	Important	8#Server#x86_64	CVE-2021-33910	Security Advisory	Jul 20
	RHSA-2021:2170 - Glib2 Se		2 0	21217001	Patches for RHEL 8	Important	8#Server#x86_64	CVE-2021-27219	Security Advisory	Jun 1,
	Run 'dist-upgrade' to instal		1 0	3	Patches for Ubuntu 2004		Ubuntu-2004-x64	N/A		Oct 1,
	Install all available updates		1 0	5	Patches for Ubuntu 2004		Ubuntu-2004-x64	N/A		Oct 1,
	UPDATE: Microsoft .NET Fr		1 0	48001	Patches for Windows	Unspecified	Win8.1, Win2012, Win2. [8]	Unspecified	Feature Pack	Apr 1
	Set up Network Share for O.,		1 0	365015	Patches for Windows	Unspecified	Office 2013	Unspecified	Unspecified	Mar 3

The first column lists the Patch Name. Next to this column we see Vulnerable Devices. There is an entry in the grey box at the top of the column which means a filter has been applied, in this case, to only show patches that are applicable to at least one device in our environment right now. If we turn the filter off by clicking on the "down" triangle to the right of the number "1", we can see all patch content available in BigFix right now.

41. Go ahead and turn off this filter to see more content. You will notice the number of patches in the top left corner increases when you do.

We will turn this filter back on in a minute during the patching process.

42. We will set up some filters to look for Patches of a Critical Severity on Windows endpoints only and are applicable to endpoints in our environment right now. The process is below but see if you can apply these filters by looking at the WebUI page. They are pretty intuitive.

a. Apply • Clic • Cho • As hea • Clic	y a filter to see only Ubuntu patches ck in the grey box in the "Site Name" column eck the box next to "Patches for Ubuntu <version>" with patch severity above, note the number one (1) in the blue oval in the ader. This means we have applied a filter to this column ck anywhere on the page to collapse the "picker"</version>	Site Name 1 × Patches for RHEL 8 Patches for Ubuntu 2004 Patches for Windows	Se
 b. Apply Clic Cho No app Clic 	y a filter to see only Critical patches ck the grey box in the "Severity" column eck the box next to "Critical" te the number one (1) in the blue oval in the header. This means we have plied a filter to this column ck anywhere on the page to collapse the "picker"	Severity	
c. Apply • Rei • Clic • No	y a filter to see currently applicable patches member that we turned this filter off in step 6. ck the "up" triangle in the grey box in the "Vulnerable Devices" column te the "1" in the grey box	Vulnerable Devices 🔨	•

Also note that the list of patches has decreased

43. We also have the option to export this information to a file.

			Expor	t	Show Summary
View:	20 💌	<	1 🕶	>	1 of 1 pages

- a. Click on the "Export" button at the top right
- b. Give the report a name
- c. Specify whether you would like to export all items or the items you have selected (if you have selected any items yet)
- d. Specify the type of file you would like to save the report as (CSV, Excel, or PDF)
- e. Choose to open or save the report

		Export	Show Summary				
_	_	Report Name					
	`	Patch re	eport				
	G	O Select	ed items				
	Ŭ	💿 All iter	ns				
	Sec	Name	e column only				
	Sec	Inclue	de column headers				
1	Sec	CSV					
	Sec	PDF (sun	nmary)				
1	Cool	uritu I Indata	Adour 1				



Critical Windows Patches ♡

Critical & Important RHE... ♡

 \heartsuit

Ubuntu Patches

Site = Patches for Windows, Severity = Criti.

Site = Patches for RHEL8, Severity = Critical

Enter a description here

- 45. Now we are going to decide which of these patches to deploy. Based on our filters, these are all the "Unspecified" Ubuntu patches that are applicable to devices in our environment right now.
- 46. If we want to deploy all of them, we simply check the box at the top of the "Patch Name" column and click "Deploy". The number of selected patches appears next to "Deploy"

NOTE: The number of applicable patches in this guide may differ from what you see in your view.

10 patches V Reset all filters								
10 Items Selected View Selected only Deploy (10)								
V Patch Name 🗘	Vulnerable Devices \uparrow_{\downarrow}	Open Actions 🗅						
Type for search	1							
✓ Unspecified - Libhogweed5	1							
Unspecified - Gcc-10-Base	1							
Unspecified - Libgcc-S1 - U	1							
Unspecified - Libstdc++6	1							

- 47. The sidebar on the right of the page lists the Deployment Summary
 - a. This deployment name is "Multiple Action Group" by default, because we are deploying multiple patches, or taking multiple actions with BigFix.
 - b. Enter a meaningful name in the grey Deployment Name box. This allows us to tell this deployment apart from other deployments.
 - c. If we wish to change the patches being deployed we can click on the "paper and pencil" icon to the right of the number of patches

Deployment Summary	
Deployment Name	
Obuntu Patching - <date></date>	
 10 Patches 	Ø
Show all	
Back	\rightarrow

- 48. Click "Next" to continue the deployment process
- 49. **Select Action**. In this step of the patch deployment, we ensure that the correct Action is selected for each patch. Many patch Fixlets contain what is call a "Default Action" meaning this action is selected by default. In the case of a patch, the default action is to deploy the patch. Sometimes however, there is no default action, because there is more than one viable option

	Deploy Patch				
for a patch deployment. On	Select patch	3 Select action	Select targets	O Configure	Deployment Summary
this screen, we make sure	10 Patches			Clear All (10) 🕅	Deployment Name Ubuntu Patching - «DATE»
each patch has an action	II Unspecified - Libhogweed5 - Ubunto 20.04 (and64)	Default: Action1 Click here to start the deployment proce	251.	• ×	∧ 10 Patches 2
selected, default or otherwise.	II Unspecified - Gcc-10-Base - Uburtu 20.04 (amd64)	Default: Action 1 Click here to start the deployment proce	055.	0 ×	Show all
We can also remove patches	II Unspecified - Libgco-S1 - Ubuntu 20.04 (amd64)	Default: Action1 Click here to start the deployment proce	e53.	n ~	Back Next →
from the list by clicking on the	II Unspecified - Libstdo++6 - Ubuntu 20.04 (amdo4)	Default: Action1 Click here to start the deployment proce	855.	0 v	
blue trash can icon on the	II Unspecified - Libsystemd0 - Ubuntu 20.04 (emd64)	Default: Action1 Click here to start the deployment proce	#53.		
right.	II Unspecified Libudev1 - Ubuntu 20.04 (emd04)	Default: Action1 Click here to start the deployment proce	058.	ê ~	
	II USN-4760-1 - Libzstd Vulnerabilities - Uburtu 20.04 (.	Default: Action1 Click here to start the deployment proce	855.	a ~	
	II USN 4968-1 - Lz4 Valnerability - Ubanta 20.04 (emd64) Default: Action1 Click here to start the deployment proce	C 53.	8 ×	
	II USN-4990-1 - Nettle Vulnerabilities - Ubuntu 20.04 (a.	Default: Action 7 Click here to start the deployment proce	e55.	8 4	
50. Click "Next" to continue the deployment process	H USN-5021-1 - Curl Vulnerabilities - Ubuntu 20.04 (am.	Default: Action1 Click here to start the deployment proce	C55.	8 ×	

- 51. **Select Targets**. In this step of the patch deployment, we choose what endpoints to deploy these patches to. The endpoints with applicable patches will show up in the list.
- 52. Check the box(es) next to the applicable device(s), or check the box next to "Computer Name" to select all devices 53. Click "Next" to continue the deployment process

E	HCL	SoFy C	ustomer	Exercis	e Guid	e						
Depl	oy Patch		Select action		0	Select targets		Continue			Deployment Summary	y.
Target b	vy device Target by grou	qu	Section and		Ŭ	ociet angelo		U company			Deployment Name Ubuntu Patching ~ <date></date>	•
1 dev	ice 💎 Reset all filters 🐲 N	o relevant				R Manual	y target 👘 Manage columna	View: 20 •	< 1 • 3	1 of 1 pages	✓ 10 Patches	e
1 Iten	n Selected View Sele	cted only Critical Patches	Applicable P_	Deployments	Device Type	OS	Groups	IP Address	DNS Name	Agent Status	 1 Target bigfix-client-ub20 	ø
	Type for search		:	\$							Back	$_{\rm Next} \rightarrow$
	bigfix-client-ub20	No	12	6	Server	Ubuntu 20	Linux Devices, Nati	10.72.3.30	bigfix-client-ub20	Installed		

NOTE: In this tutorial, the number of endpoints is one, but yours may be different.

54. **Configure**. In this step we will specify how and when these patches are to be deployed, how and if the end user will interact, and actions to take after the patches have been deployed. There are five screens, and we will go through each one setting behavior and constraints that correspond to our scenario.

Instructions for each page in the **Configure** step follow, along with settings for each. We will make settings adjustments according to our scenario.

Note: If you wish to exercise more settings than just the one in our exercise, click the paper and pencil icon next to the number of patches on the right and de-select some of the patches from this deployment. This will allow you to perform additional patch deployments and explore other deployment options.

Configure Options: Run This page specifies schedule information for deploying patches. Make the following settings on this page:

- Start: Use today's date and the time of 10:00pm
- End: Use tomorrow's date and the time of 1:00am
- Retry: Check this box to retry failed patches during the patch window. Click the radio button for "Wait until computer has rebooted"

Select patch	Select action	Deployment Summary
- ocacer parent		Deployment Name
Run 🧪	Time Zone	Ubuntu Patching - <date></date>
Users 🖌	Client Time - 🕐	 10 Patches
Messages 🖌 🥒	Affects all time-related parameters you set on this page	
offer 🖌		✓ 1 Target
Post-Action	Otromadiately (2)	Configure
		A Run
	End	Time Zone
	O No end date ③ ④ □ 08/05/2021 01:00 AM -	On Client Local Time ③ Start
		08/04/2021 10:00 PM
		08/05/2021 1.00 AM
	Run between hours ()	A Run member actions Active all members action active or provides of
		errors
	Dus on extend	On failure, retry 3 times Wait until computer has
	(MON) (TUE) (WED) (THU) (FRI) (SAT) (SUN)	reboated
	000000	🗸 Users
	Run all the member actions	- Post-Action
	I Run all the member actions in the group even on error	
		Back Deploy
	Run Only When	
	Active barectory vain * matches *	
	Betry	
	🗾 On failure, retry 3 🌻 times	
	O Walt until 10 minutes + between attempts	
	Wait until computer has rebooted	
	Reapply action	
	Reapply action	
	Download Download prerequisite files before the deployment starts (7)	
	Stagger actions	
	Start time over 0 🙏 hours 0 👙 minutes to reduce network load	



Configure Options: Users. This page specifies how the patch deployment behaves according to logged-in users. In our scenario the retail establishments are closed which means that no users are logged in. We will not make any settings changes on this page.

Select pate	:h	Select action	Select targets	Deployment Summary
				Deployment Name
Run	1	Run action		Ubuntu Patching - <date></date>
Users	1	• Even if there is no logged in user. Display the user interface to specified	users	10 Patches
Vessages	1	O When at least 1 of the specified users is logged in. Display the user inter	face only to those users	~ To Fatciles
Offer	1	O Only when no user is logged in		- 1 Target
Post-Action	1	•		Configure
		Select users		v Run
		All users		C. House
				∧ Users
		O users in a local session		G Run action Even if there is no logged
		O Users in a group		user. Display the user inte to specified users
				क्षे Selected users All users
				V Post-Action

Configure Options: Messages. This page allows us to display information about a pending and/or running action for endusers. Depending on the week and month, there may be people working late, and logged into one of these systems. We will send a notice that the patch process is about to start.

- Before running action: Check the box to send this as a required action
- Action description: Enter a description in the grey box

Select patch	Select action	Select targets	Configure	Deployment Summary
<u> </u>	0	9	• ·	Deployment Name
Run Users Messages Offer Post-Action	Before running action Send this as a required action (*) Action description: Patch Window begins at 10:00PM.			Ubuntu Patching - <date> 10 Patches 1 Target Configure Run </date>
	Prompt me to save work Allow me to show action script Allow me to cancel action Show me confirmation message before running message Deadline To minutes Mun action automatically When the deadline is met Mun action automatically While running action Display a running message (*)			 Users Messages Before running action Send this as a required active Prompt me to sarve work. Set deadline 10 minutes from time activity Run action automatically Post-Action Back Deploy (2)

Configure Options: Offers. This page allows logged-on users to run the patch deployments outside of the "Run" window. We will allow these users to kick off the patch process early if they choose.

- Offer: Check the box to send as an offer
- Offer Description: Enter a description in the grey box
- Check the box to notify the logged-on user about this offer

Deploy Patch

Select natch	Select action	Select targets	Configure	Deployment Summary
of deter paren	BUICK SCIEN	Select targeta	U Connyare	Deployment Name
Run	Offer			Ubuntu Patching - <date></date>
Users	Send this as an offer (?) Offer Description			🗸 10 Patches 🖉
Offer	B I ⊻ dt S X X, A ⊠ ⊫ ≣ & − 1	≣ e [*] φ		🗸 1 Target 🖉
Post-Action	The Ubuntu patch window begins at 10:00pm tonight. You may run this patch proce	ess early		Configure
				🗸 Run
				🗸 Users
	Notify me of offers			V Messages
				∧ Offer
				Send this as an offer
				 Post-Action
				Back Deploy ⊘
				Back



Configure Options: Post Action. This page allows us to restart or shut down endpoints after patching.

- a. We will reboot the endpoints after the patch cycle, so select the "Restart the computer" radio button
- b. We will accept the default Title and Text under "Prompt before restarting"
- c. Leave the "Allow me to cancel restart" unchecked. "Me" is the end-user, not the administrator
- d. Set the Deadline for 5 minutes from time action completes
- e. Accept the "Restart Automatically" default radio button in the "At Deadline" section.

Deploy Patch Deployment Summary Select patch Configure Select action Select targets vment Name Ubuntu Patching - <DATE> Run After the action is run O Do nothing Users ø 10 Patches Restart the computer Messages 1 Target 12 Shut down the computer Offer Configure Post-Action Run Prompt before restarting Display message to active users Users Title * Messages Restart Now Offer Text* A Post-Action Your system administrator is requesting that you restart your computer. Please save any unsaved work and then take this action to restart your computer After the action is run Restart the computer Back Deploy 🕑 Allow me to cancel restart from time action completes Set deadline: 5 minutes At deadline Restart Automatically O Show the action message at the top until I accept

- 55. Verify your selections as necessary. When you are satisfied with the selections, click the blue "Deploy" button in the right sidebar.
- 56. You may now watch the deployment progress in the Deployment window

syment Status					Stop De	spicyment
					Behavior True	Other Group Deployment
list Reported					Sur	D4 Aug 2021 22:00
05	20%	48	60%	896	tions End	05 Aug 2021 01:00
					Time Zone	Client Time
					Pre-cache	Not Required
					Restart	Restart Required
					is Offer	Yes
					Details	
					0	121
					State	Open
					maaed	04 Aug 2021 22:05
					insued By	BFXUlset
					Targetin 1 Statual	g ly Tangeted
					Compon 10 Compo	ents .

There is so	ome useful informa	ation on this page	e:		Stop Deployment	
a.	Stop Deploymer stop the deployr continue to run,	nt button. You ca ment. Any curren but subsequent	an click on this buttor ntly running patch ins patches will not insta	n on the right to stallations will all.	Behavior Type Start End Time Zone Pre-cache Restart Is Offer Details ID State	Other Group Deployment 04 Aug 2021 22:00 05 Aug 2021 01:00 Client Time Not Required Restart Required Yes 121 Open
b.	Overview tab. Sł	hows the progres	ss of the deployment.			
Ubuntu Pato	ching - <date> vice Results Component Results</date>					
Deployment Not Repo	scried					

c. Device Results tab. Gives an overview of the devices in the deployment and their current status.

Note: When you click on the Device Results" tab, you may see messages such as "Constrained by distribution time" or "Constrained by distribution date." This has to do with the fact that the patch distribution is scheduled in the future. It is expected, not an error.

buntu Patching - <date></date>			
Overview Device Results Component Results			
1 Result			
		Status: All + Sort by: Sta	tus • View: 20 • 🔲 1/1 4
Device Name	Last Seen	Status	14.51
bigfix-client-ub20	5 minutes ago	Not Reported	

d. Component Results tab. Gives the status of each component/patch in the deployment

Ubuntu Patching - <date> Overview Device Results Component Results</date>		
10 Deployments		Q Sort by: Execution Order + View: 20 + ■ 1/1 4 ►
Unspecified - Libhogweed5 - Ubuntu 20.04 (amd64)	Open	
Unspecified - Gcc-10-Base - Ubuntu 20.04 (amd64)	Öpen	
Unspecified - Libgcc-S1 - Ubuntu 20.04 (amd64)	Öpen	
Unspecified - Libstdc++6 - Ubuntu 20.04 (amd64)	Open	
Unspecified - Libsystemd0 - Ubuntu 20.04 (amd64)	Öpen	
Unspecified - Libudev1 - Ubuntu 20.04 (amd64)	Open	
USN-4760-1 - Libzstd Vulnerabilities - Ubuntu 20.04 (amd64)	Open	



BigFix Patching Scenario – Using Patch Policies

Executive Summary

A Patch Policy is a set of criteria that defines a patch list; that is, a collection of Fixlets that meet the patching criteria of a specific set of endpoints.

Patch Policies enable you to enforce your organization's patching cycles and security guidelines, to ensure continuous security and compliance for your organization. With Patch Policies, you can create patching schedules for different groups of machines and assign different deployment behaviors to each. You can also set patch timing, frequency and duration, pre-caching and retry behavior, stagger start times, bypass errors, and notify device owners when a restart is pending.

BigFix Patch Policies:

- Enable you to choose what content is available for your patch process
- Allow you to update content on a schedule, so you always have the latest content if the vendor makes a change
- Allow you to create different schedules for patching endpoints
- Can be completely automated end-to-end, or policies and schedules can be enabled and disabled as needed

Here are some examples of a Patch Policy:

Distribute all critical and important patches to all Windows 10 workstations beginning the Friday after the second Tuesday of the month and keeping the content available until the last day of the month.

Another example of a Patch Policy is to test all Critical Windows Server patches by distributing them to a group of test servers at 10:00pm on the second Tuesday of the month, and based on the successful outcome, distributing the same patches to a group of DEV servers at 10:00pm on the Wednesday after the second Tuesday of the month, and distributing the same patches (as long as successful) to the production servers on the Friday after the second Tuesday, between 10:00pm and 11:59pm

Another example is the requirement to patch the platform (operating system) of a group of production database servers, but not the application (MS SQL) running on those servers, and to perform this patch process the Saturday after the second Tuesday, between 10:00pm and 11:59pm.

Patch Policies can be used in three ways:

Fully Automated Patching. You can set a Patch Policy to check for applicable patches on a specified interval. You can then enable a patching schedule that automatically delivers this patch content to the endpoints you specify. This method takes advantage of the automation within BigFix to apply a "Set it and forget it" methodology to patching endpoints.

Semi-Automated Patching. You can set a Patch Policy as indicated above and set up multiple schedules for the endpoints you want to patch (test, dev, prod), and suspend the schedules so the endpoints are not patched until the patch content has been tested in your environment.

Scheduled and/or exception patching. You build a patch policy with schedules that dictate when different groups of endpoints get patched, and endpoints and/or endpoint groups are added or removed to the schedules as needed

Scenario

You are a retail customer with establishments where you serve your own customers. You have a central datacenter at your corporate office, regional distribution centers, and retail stores.

The endpoints in your environment are managed different ways depending on their location and purpose. For purposes of this scenario, the endpoints are distributed as follows:

- Windows devices represent the point-of-sale devices (POS) in your retail stores
- Ubuntu devices represent other devices in your retail stores
- Red Hat devices represent devices in your datacenter and your regional distribution centers

The patch process for your company has been established to support the business, and your job is to enforce the process to protect the business interests. You must patch your endpoints, regardless of location, on a schedule that does not interfere with retail business hours. You must be able to select patches based on severity and operating system, and you must be able to deploy patches on different schedules with different procedures based on location, function, or operating system. Finally, you must have the ability to perform all functions without the aid of a local operator.

Note: this demonstration scenario and the script below is provided as a means of familiarizing you with how BigFix works. Even if your business does not line up with the retail model, most businesses have endpoints in more than one location, and must apply patches on varying schedules with varying requirements. Once you are familiar with the solution, feel free to exercise it using different scenarios, or use your own patching scenario.



Windows Patch Policies Walk-thru Script: Weekly Patch Cycle

57. To perform the demo, navigate to https://hclsofy.com to create an environment, or to the WebUI URL you bookmarked previously.

NOTE: SoFy Solutions do not last forever; they have a maximum life of 24 hours at any given time. If you wait more than 24 hours without extending, the solution will expire, and you will have to create another one (see <u>Extending Deployment</u> <u>Time</u> for more information).

- 58. In this scenario we are going to apply Windows patches using BigFix. We will apply some filters to look at Critical Patches for Windows, and we will focus on patches that are relevant in our environment right now. As we walk through this demonstration, feel free to work with the filters to see what choices you have, and how the selections change by applying and removing filters.
- 59. We will first log into the WebUI.
 - a. This URL is located on the Solution Content -> HCL BigFix Preview -> General Information -> Open Link Button to the right of "HCL BigFix WebUI
 - b. Use the User ID and Password located on this page to log into the WebUI.

IMPORTANT: The username and the password are both case sensitive!

Username	
BFXUser	
Password	
	Ð
Remember Me	

60. The first page you will see in the BigFix WebUI is the Overview Dashboard.

creice +				Query	edit coshikoard Add s	software Dep
unibers 6 Devices mataged 2 Critical practices with applicable devices 0 Software 2024gos 0 Cuatom backs 0 Basiatilies 4 Deployments that are currently open			Patch Seveily			ALOS
eployments in the last 30 days						AL ONYM
achonina	Multiple Action Group			Croup Patch	8% . #	
	BigRix Server: Register Download Plug-In for Software Distribution			Single Office	100%	
	Rename Linux Computer - hostname - bigfto-petch-demo			Single Other	054	
Gam Fadiwi Srapovi	ReStart WebU service			Single Other	0%~	1
evr Releases stranskassi kuta trikgen err Biolitz and and an en		NACH + Nekond 04 Jan 2021 07 Jan 2021 07 Jan 2021 04 Jan 2021 07 Jan 2021 08 Jan 2021 08 Jan 2021 08 Jan 2021 08 Jan 2021	Popular Popular Schuld algeste in Kolo 1949/ Million Luke Constanti genetier witheren Servi 2114 - HS202044 (2010) Million Luke Constanti genetier witheren Servi 2110 - Mildere Servi 22179 - (55522771 (246)			Paddi Deployment C

Take a minute to look around and see what information is available on this page. This is your "at-a-glance" information center for managing your infrastructure. This is data available to you without having to initiate an endpoint scan or run a report against a database. These tiles are customizable as well – you can re-arrange them or gather different data than what is currently visible.





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ney Hume			
Red Hat Patch Policy			
e *			
Jemo	×		
scription (optional)			
External content			
ted Hat Enterprise Linux 7 & 8 3ug Fix & Security 30 Updates Auto-refreshes monthly, 1 day after the 2nd Tuesday at 5am Eastern Time			
slude Content *			
] Custom content			
External content			
clude External Content			
erating System *	Category *		Include Patches for:
) CentOS	🗹 Bug Fix		
) Oracle Linux	Enhancement		Red Hat Enterprise 5
) Red Hat Enterprise Linux	Mandatory		Red Hat Enterprise 6
) SUSE Linux Enterprise	Optional		Red Hat Enterprise 7
) Ubuntu	Recommended		Red Hat Enterprise 8
) Windows	V Security		
verity *	Service Pack		
	Type *		
l important			
j moderate	US Application Updates		
Low	3rd Party Updates		
Unspecified			
05 00 AM mezone: (GMT-05:00) Eastern Time (US and Canada) v			
. Click "Save" to save the policy			
 Click "Save" to save the policy The right pane displays the new policy 	cy details. The Patch Policy state is Suspended	۵	Suspended 0 Updates
 Click "Save" to save the policy The right pane displays the new polic when created, and the Activate butt 	cy details. The Patch Policy state is Suspended on is not available until at least one schedule is	Policy ID Motified	Suspended 0 Updates
 Click "Save" to save the policy The right pane displays the new polic when created, and the Activate butt added 	cy details. The Patch Policy state is Suspended on is not available until at least one schedule is	Policy ID Modified Created by	Suspended 0 Updates 1 7 minutes ago BRXUser
 Click "Save" to save the policy The right pane displays the new polic when created, and the Activate butt added 	cy details. The Patch Policy state is Suspended on is not available until at least one schedule is	Policy ID Modified Created by External Criteria	Suspended O Updates 1 7 minutes ago BFXUser
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 Click "Save" to save the policy The right pane displays the new polic when created, and the Activate butt added 	cy details. The Patch Policy state is Suspended on is not available until at least one schedule is	Policy ID Modified Created by External Criteria Severity Category Site	Suspended Oupdates 1 7 minutes ago BFXUser Critical, Important Bug Fix, Security Demo
 Click "Save" to save the policy The right pane displays the new polic when created, and the Activate butt added 	cy details. The Patch Policy state is Suspended on is not available until at least one schedule is	Policy ID Modified Created by Extend Criteria Severity Category Site OS	Suspended O Updates 1 7 minutes ago BFXUser BXUser Bug Fix, Security Demo Red Hat Enterprise Linux ce Indeter
 Click "Save" to save the policy The right pane displays the new policy when created, and the Activate butt added 	cy details. The Patch Policy state is Suspended on is not available until at least one schedule is	Policy ID Modified Created by Extend Criteria Severity Category Site OS Type Exclusion Attentia	Suspended O Updates 1 7 minutes ago BFXUser Critical, Important Bug Fix, Security Demo Red Hat Enterprise Linux os Updates
 Click "Save" to save the policy The right pane displays the new polic when created, and the Activate butt added 	cy details. The Patch Policy state is Suspended on is not available until at least one schedule is	Policy ID Modified Created by Extend Criteria Sevently Category Site OS Type Exclusion Criteria Keyward Exclusion	Suspended O Updates 1 7 minutes ago BFXUser Critical, Important Bug Fix, Security Demo Red Hat Enterprise Linux os Updates
 Click "Save" to save the policy The right pane displays the new policy when created, and the Activate butt added 	cy details. The Patch Policy state is Suspended on is not available until at least one schedule is	Policy ID Modified Created by Extend Criteria Sevently Category Site OS Type Exclusion Criteria Keyward Exclusions Next Refeash Next Refeash	Suspended O Updates 3 7 minutes ago BFXUser Critical, Important Bug Fix, Security Demo Red Hat Enterprise Linux OS Updates
 Click "Save" to save the policy The right pane displays the new policy when created, and the Activate butt added 	cy details. The Patch Policy state is Suspended on is not available until at least one schedule is	Policy ID Modified Created by Extend Criterio Sevently Category Site Os Type Extendion Criterio Keyword Exclusion Next Refresh Frequency	Suspended 0 Updates 1 7 minutes ago BFXUser Critical, Important Bug Pix, security Demo Red Hat Enterprise Linux OS Updates
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 Click "Save" to save the policy The right pane displays the new policy when created, and the Activate butt added 	cy details. The Patch Policy state is Suspended on is not available until at least one schedule is	Policy ID Modified Created by Extend Criteria Severity Caregory Site OS Type Extend Criteria Reyverit Exclusions Next Refresh Prequency Extended Exclusions Next Refresh	Suspended O Updates 1 7 minutes ago BFXUser Critical, Important Bug Pix, security Demo Red Hat Enterprise Linux OS Updates

66. Click on the "External Content" tab to view the patches included in this policy

Red Hat Patch Policy

Schedules External Content

External content Red Hat Enterprise Linux 7 & 8 Bug Fix &

67. The screen displays the list of patches included in the policy





Adding Targets to a Patch Policy Schedule	
77. Click the "Add Targets" hyperlink under the "Targets" heading on	the right
Red Hat Patch Policy Schedules External Content External Content Red Hat Enterprise Linux 7 & 8 Bug Fix & Security OS Updates Auto-refreshes monthly, 1 day after the 2nd Tuesday at 5am Easter Add Schedule	n Time
Name Frequency Datacenter Servers Monthly 1 day after the 2nd Tur	e 06:00 Client Time Add Targets
 48. Click the blue "Expand All" button and take a look at the available filters. These are the different ways we can select the target endpoints for this patch policy schedule. We can also target by computer group. Click the "Target By Group" tab to see the available computer groups. We will select our target devices using the filters. a. Click on the "Target By Device" tab b. Expand "Operating System" c. Expand "Linux" d. Check the box next to "Red Hat Enterprise Linux" e. Select the devices on the right that correspond to the filter on the left 79. Click "OK" in the bottom right corner NOTE: You can also select the devices on the right without using the filters on the left. <u>If you use the filters however, you must remember to select the endpoints, otherwise no endpoints will be added to the schedule</u>	Skip locked constraints during patching Target By Device Target By Device Collapse AI Collapse AI Expand AI Reset filters Only show selected Ohly show selected Orderating System Linux * Windows * Cocked Unlocked Oroup Name Coroup Name Vost Recent User User Kards Search For IP



Activating a Patch Policy

We have now created a Patch Policy, a scheduled patch deployment, and added target devices to the schedule, but the policy is not active

- 80. Click the blue "Activate" button in the top right to activate the Patch Policy.
- 81. Confirm the subsequent message



- 82. Review the policy, schedule, and target devices to ensure the settings are correct.
 - a. If you need to make a change to the schedule or the policy, you must first suspend the policy
 - b. You may make changes to the targeted endpoints (add or remove) without suspending the policy

/e are going	g to create another policy for the retail endpoints.					
3. Click App	os -> Patch Policies on the WebUI menu bar.	BIGFIX Red Hat F Schedules External cor Add Sched	Devices Patch Polic External Conte Intent Red Hat E	Apps - Content Custom MCM Patch	Deployments	Repo & Secur
4. Notice th 5. Click the	ne policy we just created, and the information provide "Add Policy" button in the top right corner	3	Q reem	Drofile		Add

86. Enter the following information to create the new Patch Policy:

- a. Policy Name: Retail Servers Patch Policy
- b. Site: Demo
- c. Description: Enter a meaningful description, that will be useful after you have created multiple policies
- d. Include Content: External Content
- e. Operating Systems: Windows
- f. Severity: Critical
- g. Category: Security
- h. Type: OS Updates
- i. Include Patches for: Click the "Show More" link and check the box next to "Windows Server 2019"
- j. Auto-refresh: Click the "Enable" button
- k. Change "This policy refreshes" to "Weekly"
- I. Change the "On" day to "Wednesday"
- m. Change the time to 5:00am
- n. Change the Timezone to (GMT-5:00) Eastern Time (US and Canada).

A screen image follows to reference the appropriate settings



y Name * tail Servers Patch Policy mo v fiption (optional) ndows Critical Patch policy Security updates ndows Server 2019 ie Content ustom content xternal content		
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ity*		Windows Server 2008
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mportant 🛛 🖉 OS Updates		Show More
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.ow 🗌 3rd Party Updates		
Inspecified		
ude Content		
Click "Save" to save the policy		
		Suspended
The right pane displays the new policy details. The Patch Policy state is		0 Updates
Currended when exected and the Activity butter is not evaluated with the	Policy ID	2
Suspended when created, and the Activate button is not available until at le	East Modified	a few seconds ago
one schedule is added	Created by	BFXUser
	External Criteria	Alfal
	Severity Category	Critical Security
	Site	Demo
	os	Windows
	Туре	OS Updates
	Exclusion Criteria	
	Keyword Exclusions	«Not specified»
	Next Refresh	(available for active policies)
	requency	weeky wednesody
	Manage Patch Policy	
	Manage Patch Policy Edit Policy	
	Manage Patch Policy Edit Policy	

 89. Click on the "External Content" tall patches included in this policy 90. The screen displays the list of patches Retail Servers Patch Policy Schedules External Content List of Patches included or excluded Included Excluded New 	b to view the Retail Serve Schedules Windows Critic hes included in the policy	External Content cal Patch policy OS Security updates Windows Server 2019
Refine My Results Colapse AI Expand AI Reset filters Applicable Patches 91. Under "Refine My Results" click th 92. Check the box next to "Applicable 93. Notice the list of patches decreases included in your patch deploymen 94. We will leave the box un-checked	9 Patches Be Exclude (0) Big MS21-JUL: Cumulative Update for Window MS21-JUN: Servicing Stack Update for Window MS21-MAY: Cumulative Update for Window MS20-DEC: Cumulative Update for Window MS20-DCT: Security Update for Adobe Field MS20-OCT: Security Update for Adobe Field S in number. This allows you to to t. for this exercise, so un-check the	<pre>ws Server 2019 - Windows Server 2019 - KB5004244 (x64) ndows Server 2019 - Windows Server 2019 - KB5003711 (x64) ws Server, version 1909 - Windows Server 1909 - KB5003244 (x6 ws Server, version 1903 - Windows Server 1909 - KB5003244 (x6 ws Server, version 1903 - Windows Server 1903 - KB4592449 (x64) indows Server, version 1903 - Windows Server 1903 - KB4586863 (x6 sh Player for Windows Server 2019 - Windows Server 2019 - Adobe F control the patches box </pre>
 95. The "Refresh Now" button refresh policy 96. The "Activate" button is not availated. Retail Servers Patch Policy Statistic Converting 	es the applicable patch list, over ble until we add a schedule to th	riding the schedule we set when we created the is policy
Page 64 Copyright 2021 H	CL Technologies Limited, All Rights Reser	ved Unauthorized duplication prohibited



3. Click "Save" in the upper right corner

Unauthorized duplication prohibited

Adding Targets to a Patch Policy Sche	dule	
1. Click the "Add Targets" hyperlink under	the "Targets" heading on t	he right
Retail Servers Patch Policy Schedule External Content Windows Critical Patch policy OS Security updates Windows Server 2019 Add Schedule Name Retail Windows Servers	Frequency Weekly Wed 22:00 Client Time	Targets Add Targets
 Click the blue "Expand All" button and t available filters. These are the different target endpoints for this patch policy sc 	ake a look at the ways we can select the hedule.	Skip locked constraints during patching Target By Device Target By Group Refine My Results
We can also target by computer group. Group" tab to see the available comput	Click the "Target By er groups.	Collapse All Expand All Reset filters Only show selected Only show selected
We will select our target devices using t	he filters.	✓ Device Type □ Server
 a. Click on the "Target By Device" b. Expand "Operating System" c. Check the box next to "Window We could expand "Windows" by exercise, because the only Wind 2019 d. Select the devices on the right the filter on the left 3. Click "OK" in the bottom right corner 	tab vs" ut there is no need in the dows computer is Server that correspond to the	 ✓ Operating System □ Linux □ Windows ✓ Lock Status □ Locked □ Unlocked ✓ Device Group Group Name ✓ Most Recent User □ User Name ✓ IP Address Search For IP
NOTE: You can also select the devices on the filters on the left. If you use the filters howe remember to select the endpoints, otherwise added to the schedule	e right without using the <u>ever, you must</u> se no endpoints will be	
We have now created a Patch Policy, a sche policy is not active	duled patch deployment, a	nd added target devices to the schedule, but the
 Click the blue "Activate" button in the t Confirm the subsequent message 	op right to activate the Pate Are you sure? • The policy will be activated. • Patching action generation will be trigg • Policies cannot be updated when it is a	gered at the scheduled time. active.

- 6. Review the policy, schedule, and target devices to ensure the settings are correct.
 - a. If you need to make a change to the schedule or the policy, you must first suspend the policy
 - b. You may make changes to the targeted endpoints (add or remove) without suspending the policy

Cancel

Confirm



Creating a Patch Policy #3

- 1. We are going to repeat the Patch Policy creation, the Policy Schedule creation, and adding targets for the Ubuntu store server.
- 2. Click Apps -> Patch Policies on the WebUI menu bar., and click the "Add Policy" button in the top right corner

Policies			Q	
				Carthy Mama - May 20 - 10 1/1 d
Red Hat Patch Policy External content Red Hat En	erprise Linux 7 & 8 Bug Fix & Security OS Updates Auto-refreshes monthly, 1 day at	ter the 2nd Tuesday at Sam Eastern Time		oper og reason - 1000, 400 *
Patches.	59	Status	active	
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Retail Servers Patch Poli Windows Critical Patch polis Patches Devices OS	y us security updates withows server 2019 9 1 (0 Groups) Windows	Status Patch Updates Next Refresh	0 since 8/6/2021, 3:36:26 PM 8/11/2021, 6:00:00 AM	

- 3. Enter the following information to create the new Patch Policy:
 - a. Policy Name: Retail Ubuntu Servers Patch Policy
 - b. Site: Demo
 - c. Description: Enter a meaningful description, that will be useful after you have created multiple policies
 - d. Include Content: External Content
 - e. Operating Systems: Ubuntu
 - f. Severity: Unspecified
 - g. Category: Security
 - h. Type: OS Updates
 - i. Include Patches for: check the box next to "Ubuntu 20.04"
 - j. Auto-refresh: Click the "Enable" button
 - k. Change "This policy refreshes" to "Weekly"
 - I. Change the "On" day to "Wednesday"
 - m. Change the time to 5:00am
 - n. Change the Timezone to (GMT-5:00) Eastern Time (US and Canada).

A screen image follows to reference the appropriate settings

atch List Uriteria			
licy Name *			
Retail Ubuntu Servers Patch Policy			
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Demo	•		
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Ubuntu			
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lude Content *			
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clude External Content			
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Dracie Linux			Ubuntu 16.04
Rea mai Enterprise Linux			Ubuntu 18.04
SUSE LINUX ENTERPRISE			✓ Ubuntu 20.04
Jbuntu	Recommended		
Windows	✓ Security		
Critical	Service Pack		
Important	OS Undates		
Mederate	OS Application Lindatos		
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clude Content			
lude from this policy any patch whose title contains one of these keywords:			
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- 7. If we wanted to exclude any of the available patches, we would check the box next to the patch and click the blue "Exclude" button
- 8. The "Refresh Now" button at the top right refreshes the applicable patch list, overriding the schedule we set when we created the policy

Adding a Schedule to a Patch Policy
9. Click on the "Schedules" tab to return to the previous window and click the blue bar to add a schedule.
Retail Ubuntu Servers Patch Policy
Schedules External Content
Ubuntu Unspecified Security OS Updates Ubuntu 20.04
No schedules found. Add a schedule
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3. Click "OK" in the bottom right corner

NOTE: You can also select the devices on the right without using the filters on the left. If you use the filters however, you must remember to select the endpoints, otherwise no endpoints will be added to the schedule

We have now created a Patch Policy, a scheduled patch deployment, and added target devices to the schedule, but the policy is not active

- 4. Click the blue "Activate" button in the top right to activate the Patch Policy.
- 5. Confirm the subsequent message



✓ IP Address

- 6. Review the policy, schedule, and target devices to ensure the settings are correct.
 - a. If you need to make a change to the schedule or the policy, you must first suspend the policy
 - b. You may make changes to the targeted endpoints (add or remove) without suspending the policy

Targets

Add Targets

BigFix Reporting (Reporting within the WebUI)

Executive Summary

WebUI Reports allow you to quickly create and save custom reports to obtain more specific information about devices, patches, and deployments of endpoints. WebUI Reports are like bookmarking a page so you can view it later. All of your WebUI Reports are viewable by clicking the Reports button on the menu bar at the top of the page.

Scenarios

Here are some scenarios when you may find WebUI Reporting useful:

- A patch administrator wants to track all critical and important patches that are applicable to all endpoints, regardless of operating system.
- A workstation management administrator wants a quick way to view deployments of patches and software, to keep track of deployment progress.
- The IT operations manager wants to view summary information about the team's tasks and export this information for later use.

If you completed the patch exercises, you may have already created some reports. We will create some more here, to demonstrate the ease of use of BigFix Reporting


BigFix Reports: Patch Compliance

- 7. We will first log into the WebUI.
 - a. This URL is located on the Solution Content -> HCL BigFix Preview -> General Information -> Open Link Button to the right of "HCL BigFix WebUI
 - b. Use the User ID and Password located on this page to log into the WebUI.

IMPORTANT: The username and the password are both case sensitive!

Isername	
BFXUser	
Password	
	÷
Remember Me	

8. The first page you will see in the BigFix WebUI is the Overview Dashboard.

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704							14	

Take a minute to look around and see what information is available on this page. This is your "at-a-glance" information center for managing your infrastructure. This is data available to you without having to initiate an endpoint scan or run a report against a database. These tiles are customizable as well – you can re-arrange them or gather different data than what is currently visible.

9. From the WebUI Overview Dashboard, Click Apps -> Patch.



On this page we see at a glance, the patches that are applicable in our environment right now. The BigFix Agent has already evaluated this current content and determined that it is applicable to the device on which it is running. Again, we did not have to initiate a scan or run a report – the agent already knows.

0	BIGFIX Devices App	os 🛩 Deployments Re	ports							
Pa	tch Select a favorite re	eport • Save R	eport						Export Sho	ow Summary
73 ;	patches 😵 Reset all filters							View: 20 -	< 1 • > 1e	of 4 pages
	Patch Name 1	Vulnerable Devices 14	Open Actions 14	ID	Site Name	Severity	Software	CVE IDs	Category	Rele
	Type for search	1 ‡	:				Type for search	Type for search		mr
	Multiple-Package Baseline	4	0	101	Patches for RHEL 8	whore a	N/A	N/A		
	Enable the Multiple-Packa	4	0	201	Patches for RHEL 8	ADDISF.	N/A	N/A		
	Import RPM-GPG-KEY-redh	4	0	301	Patches for RHEL 8		N/A	N/A		
	dnf command with RHSM	4	0	401	Patches for RHEL 8		N/A	N/A		
	RHSA-2021:2569 - Libami2	a	0	21256901	Patches for RHEL 8	Moderate	8#Server#x86_64	CVE-2021-3516, CVE-2021	Security Advisory	Jun 2
	RH8A-2021.2572 - Systemd	4	0	21257201	Patches for RHEL 8	<unspecified></unspecified>	8#Server#x86_64	N/A	Bug Fix Adwsory	Jun 2
	RHSA-2021:2574 - Rpm Se_	4	D	21257401	Patches for RHEL 8	Moderate	8#Server#x86_64	CVE-2021-20271	Security Advisory	Jun 2
	RHSA-2021:2575 - Lz4 Sec.,	4	0	21257501	Patches for RHEL 8	Moderate	8#Server#x86_64	CVE-2021-3520	Security Advisory	Jun 2
	RHBA-2021:2577 · Subscri	4	0	21257701	Patches for RHEL 8	<unspecified></unspecified>	8#Server#x86_64	N/A	Bug Fix Advisory	Jun 2
	RHBA-2021:2581 - Openid	4	0	21258101	Patches for RHEL 8	<unspecified></unspecified>	8#Server#x86_64	N/A	Bug Fix Advisory	Jun 2
	RHSA-2021:2717 - System_	4	0	21271701	Patches for RHEL 8	Important	8#Server#x86_64	CVE-2021-33910	Security Advisory	Jul 20
	RHSA-2021:2170 - Glib2 Se	2	0	21217001	Patches for RHEL 8	Important	8#Server#x86_64	CVE-2021-27219	Security Advisory	Jun 1
	Run 'dist-upgrade' to instal	1	0	3	Patches for Ubuntu 2004		Ubuntu-2004-x64	N/A		Oct 1
	Install all available updates	,	0	5	Patches for Ubuntu 2004		Ubuntu-2004-x64	N/A		Oct 1,
	UPDATE: Microsoft .NET Fr		0	48001	Patches for Windows	Unspecified	Win8.1, Win2012, Win2. [8]	Unspecified	Feature Pack	Apr 1
	Set up Network Share for O.,	1	0	365015	Patches for Windows	Unspecified	Office 2013	Unspecified	Unspecified	Mar 3

The first column lists the Patch Name. Next to this column we see Vulnerable Devices. There is an entry in the grey box at the top of the column which means a filter has been applied, in this case, to only show patches that are applicable to at least one device in our environment right now. If we turn the filter off by clicking on the "down" triangle to the right of the number "1", we can see all patch content available in BigFix right now.

- 10. Go ahead and turn off this filter to see more content. You will notice the number of patches in the top left corner increases when you do.
- 11. We will set up some filters to look for Windows Critical and Important patches that are applicable to endpoints in our environment right now. The process is below but see if you can apply these filters by looking at the WebUI page. They are pretty intuitive.



- a. Apply a filter to see only Critical and Important patches Severity • Click the grey box in the "Severity" column Check the boxes next to "Critical" and "Important" • Note the number two (2) in the blue oval in the header. This means we have Critical applied a filter to this column Important Click anywhere on the page to collapse the "picker" b. Apply a filter to see only Windows patches Site Name • Click in the grey box in the "Site Name" column Check the box next to "Patches for Windows" • As with patch severity above, note the number one (1) in the blue oval in the Patches for RHEL 8 header. This means we have applied a filter to this column Patches for Ubuntu 2004 • Click anywhere on the page to collapse the "picker" Patches for Windows c. Apply a filter to see currently applicable patches • Remember that we turned this filter off in step 6. Vulnerable Devices 🃫 • Click the "up" triangle in the grey box in the "Vulnerable Devices" column • Note the "1" in the grey box Also note that the list of patches has decreased
- 12. Notice that the list contains some patches in black text and some in gray italics text. The patches in italics have been superseded by another patch, like a cumulative rollup. The vulnerability that the patch addresses still exists however, which is why the patch shows up in the list as "applicable" to one of the devices in our environment.

Patch Name 1	Vulnerable Device	es 1 ₄	Open Actions 14	ID	Site Name	Severity	Software	CVE IDs	Category	Rela
Type for search	1	÷	\$			2	Type for search.	Type for search		mm
MS21-JAN: Security updat		1	0	453568005	Patches for Windows	Important	Win2019	CVE-2020-0689	Security Update	Jan 1
MS20-MAY: Cumulative Upd		- 51	0	455292405	Patches for Windows	Important	Win2019	CVE-2020-1108	Security Update	May 3
MS20-JUL Cumulative Upd		10	o	456562503	Patches for Windows	Critical	Win2019	CVE-2020-1147	Security Update	Joi 14
MS20-AUG: Cumulative Upd .		3	0	456977601	Patches for Windows	Critical	Win2019	CVE-2020-1476, CVE-2020-7	Security Update	Aug 1
MS20-OCT: Cumulative Upd .		1	o	457896603	Patches for Windows	Important	Win2019	CVE-2020-16937	Security Update	Oct 72
MS21-FEB: Cumulative Up		9	0	460188709	Patches for Windows	Important	Win2019	CVE-2021-24111	Security Update	Feb 9

13. We will now save this filte	red list as a report so we can reuse the	e filter later. Click on the blue "Save Report" button
Patch	Select a favorite report 🔹	Save Report
 a. Enter information b. Provide a meaning reports c. Provide a descript help others under d. You can make the you can make it at e. You also see the r later, or share with Note: the URL is a link to the ranyone you share the report ventionment.	about the report gful name, to distinguish it from other tion for the Report. The description wil rstand the reason for the report report Private (available only to you) of vailable to All Users. eport URL, which you can bookmark for h others. report in this BigFix environment, and with must have access to this	Save Report Report Name Critical and Important Windows Patches Critical and Important Windows, Severity=Critical & Important, Vulnerable Devices >1 Or Private All Users https://bigfix-webui.sbx0012.play.products.pnpsofy.com/pat © Copy Link
 14. We are going to create an Important Patches, wheth report is that we want to may become relevant dur 15. Click the bottom black tria 16. You will notice several thi a. The number of pa b. The "Save Report" buttons. The "Up the new filters. T 17. Click on the "Save New" b 	other report while we are on this page her they are applicable to devices in ou use it for patch deployments, and we r ing the patch deployment, or at a later angle under "Vulnerable Devices" to re- ngs change on the page: htches increased " button was replaced with "Update" a date" button overwrites the report we he "Save New" button saves a new rep- putton and provide a name and a descr	e, a report that shows all Windows Critical and r environment or not. The reason for creating this may include patches that are not relevant now but r point. emove the filter. and "Save New" e just created with port with the new filters. iption, like we did before.
Patch Critical Wind	ows Patches	New
		Save Report Report Name All Windows Critical and Important Patches Deport Description Site=Patches for Windows, Severity=Critical & Important, Vulnerable Devices=0 Private All Users https://bigfix-webui.sbx0012.play.products.pnpsofy.com/pat Copy Link



18. One you have saved the reports, they are listed in the Reports section of the WebUI, and you can return to them by clicking "Reports" in the menu bar at the top and selecting your report from the list.

Reports 📃 View favorite only 🎔 2 reports Report Name 1 Description Content 1 Share With Owner ำ Type for search ... Type for search .. Critical and Important W...♡ Site=Patches for Windows, Severity=Critical... Patch Private BFXUser All Windows Critical and... \heartsuit Site=Patches for Windows, Severity=Critical... Patch Private BFXUser

Keep in mind that the filters in the report govern what information the report returns but does not save the *results* of the report. In other words, if you run one of these reports today and use it to patch your environment, the results will be different if you run the same report tomorrow.

Editing a Report

Remember that our first report was to keep track of critical and important patches for *all* operating systems, not just Windows.

- 19. Click on "Reports" in the WebUI menu bar
- 20. Click on the blue oval under "Site Name" and add the other operating system(s) patch site(s).
- 21. Click "Update" to update the existing report filters
- 22. Now we need to change the name and the description of the report, to reflect what the report is for



- 23. Click on "Reports" in the WebUI menu bar
- 24. Check the box next to the report you wish to edit
- 25. Click "Edit" in the blue report header bar

NOTE: If you select multiple reports to edit at the same time, you can only edit the availability of the report: Private or All Users.

NOTE: You can also delete reports from this page



26.	Make changes, as appropriate, to the Report Name and the
	Report Description

27. Click "Save" at the bottom right of the page

NOTE: When you edit the report, the URL does not change

Edit Report		
Report Name		
Critical and Imp	ortant Patches	
Report Descript Sites=Patches f Severity=Critica Vulnerable Devi	on or Windows, Patches for RHEL 8, Patches fo & Important ses >1	r Ubuntu 20.04
Report Descript Sites=Patches f Severity=Critica Vulnerable Devi Private	on or Windows, Patches for RHEL 8, Patches fo & Important ses >1 All Users	r Ubuntu 20.04



BigFix Reports: Tracking Deployment Progress

1. We are going to create a report to track the progress of deployments within our environment.

If you completed the patch exercises, you may remember the Deployment Status window. We can track a deployment by overall deployment status, by deployment per device, and by deployment per component (patch, in this case). See the following three screens for examples.

	Deplo	yment Status			
Overview Device Results Component Results					
Deployment Status	44	96.	in a second seco	Bit Standardsmann March Standardsmann 1 Bit Standardsma	oop Deployment Andry Team Market S277 11:46 are
	Deploymen	t Status Per Dev	rice		
Device Results Component Results	· ·				
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2 Deployments	Deployment St	artus Per Comp	onent	Stop Deployment	I
MS21-JUN: Cumulative Update for Windows Server 2019 - Windows	ows Server 2019 - K85000546 (xb4) Open			Type Start Fod	Patch Group Deployment Invitediately 17. Ave 2021 11:45
4521-J.N. Swricing Stuck Update for Wordows Server 2019-W	Indown Server 2019 - x835002771 (x54) 9991			the Zow In Case Constant In Constant In Co	Citari Time NG Sigurd No Ope Ope Dis Jun 2221 11,03 BRAND'SI

We want to create a report to track all of our open deployments.

- 28. Click on "Deployments" in the WebUI menu bar
- 29. The list of filters is on the right, under the "Refine My Results" header.
- 30. Expand "Deployment State" and check the box next to "Open"
- 31. Click the "Save Report" button in the Deployments header

Application Type

- a. Provide a meaningful name, to distinguish it from other reports
- b. Provide a description for the Report. The description will help others understand the reason for the report
- c. You can make the report Private (available only to you) or you can make it available to All Users.
- d. You also see the report URL, which you can bookmark for later, or share with others.

NOTE: the URL is a link to the report in this BigFix environment, and anyone you share the report with must have access to this environment.

Report Name *	
Open Deployments	
Description	
/isibility	
Private All Users	
/isibility Private All Users https://bigfix-webui.sbx0012.play.products.pnpsofy.com/framewo	원 Copy Link
All Users https://bigfix-webui.sbx0012.play.products.pnpsofy.com/framewo	션 Copy Link

32. Remember from the previous example that we can edit the report by modifying the filters. For example, you can modify the filters for this report to track expired deployments, or deployments that require a restart.

NOTE: You do not have to save the new report to see the report results. The results change as the filter changes.



BigFix Reports: Viewing Summary Information

- We are going to take a look at Summary Reports, previously referred to as In-Line Reporting. Summary Reports are available everywhere in the WebUI where you see the "Show Summary" button in the top right corner of the page.
- 2. We will start with Devices Summary. Click "Devices" on the blue menu bar at the top of the page.

6 de	vices													Mar	age columns	View: 20	• K	1 -	3 10	d 1 pages
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	bigfix-server	٥	No	6	9	Server	Linux Red	Linux Devi	10.64.226	bigfix-server	installed	+none>	4 minutes _	BES Agent	No					
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	bigfor-client-ub20	٥	No	0	0	Server	Linux Ubun		10.64.225.5	bigfx-clien	installed	<none></none>	3 minutes _	BES Agent	No					

Export To 🗸

Show Summary

3. Click the "Show Summary" button in the top right of the screen.

evi	e Type by Report	Time								By OS Fan	nily				By Largest Group	
	Total Devices Server	-	< 2/	Bres 6 6	1-7 days	0 0	G O days O	> 30 days	6	ŝ	ted Haf Enterprise U	Linux 2 Swrtu 2 Sowrt 1			Native Big ¹ is Clients 5 Lana Devices 4 Big1 R Resp. 1 Not Documa Jacker - Wrokows 1 Windows Devices 1	
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- 4. This view is a summary view of the devices, or endpoints, in our environment. Take a few minutes to click into the summary charts. You will see that as you click on different items, the device table at the bottom changes, with the appropriate filter applied. You can also clear the filter by clicking on the "x" in the blue oval at the top of the filtered column.
- 5. This Summary View is also available for Deployments and Patch (screen examples follow)

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Patches Summary

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			USN-4760-1 - Liter USN-4836-1 - Nem USN-4958-1 - Liter USN-4958-1 - Liter 25595547 - Manager	ald Vuinerabilities le Vuinerability - Uk Valherability - Ubur SMBv1 in Window	- Ubuntu 20.04 (amd64) huntu 20.04 (amd64) ntu 20.04 (amd64) ntu 20.04 (amd64) nt acd Windows Sorver - Dinable Workaround (Bene	ve SMR v1 completely) - Wind	tove 8.1 / Windows 10 / Windows Server 2012 R2 / Windows Server 2016	10 10 10	40 41 40
			USN-4750-1 - Los USN-4956-1 - Nem USN-4958-1 - Le4 25595547 Manuge 25595547 Manuge	eld Vuinersbillies le Vuinersbillty - Ub Vuinersbillty - Ubur SMB+1 in Window actesory: Update f	Ubuntu 20.04 (und64) humu 20.04 (und64) ntu 20.04 (und64) ntu 20.04 (und64) ntu dol Windows Sorver - Disable Workaround (Rem far disabling RD4 - Enable Workaround (Completely	we SMB v1 completely) - Wind drukhe RC4)	love 8.17 Windows 107 Windows Server 2012 R27 Wednes Server 2016	10 10 10	40 41 40 40
			USN-475011-Ubz USN-4935-1-Viett USN-4935-1-Left 25595541-Left 25595547-Manager 2659725 Security MS2t1-JAN, Securit	etd Wumerabilities le Wumerability - Ubur SMB+1 in Window actusiony: Update for Secu	- Liberto 20 64 (and64) humil: 20 04 (and64) nit: 20 34 (and64) nit: 20 34 (and64) nit: 20 34 (and64) fitte (abating RE-4: Enable Workscound (Conspining) are Boot DEX - Windows Serve 2019 - KS4535680 (ve SMI v1 completely) - Wind Stable RC4) 64)	loss 1.17 Windows 107 Windows Server 2012 R27 Windows Server 2014	19 19 19 10	40 41 40 40



Exporting Reports

- 6. These Summary Reports can be exported as a comma-separated values file (.csv), a Microsoft Excel file (.xlsx), or a portable document (.pdf).
- 7. To export the summary report, click on "Export To" in the upper right corner of the page. You can export selected items, all items, or the name column only (with or without headers). Take a few minutes and explore your export options, as well as the resulting exported documents.



BigFix Reporting: Using Web Reports

Executive Summary

BigFix Web Reports is a high-level web application that complements and extends the power of BigFix. It connects to one or more BigFix databases to aggregate and analyze your entire network. It allows you to visualize your data in a web browser, with both charts and data listings. Web Reports provides you with a convenient, compact, and timely overview of your BigFix network, no matter how broadly it extends.

Web Reports is organized around domains, which are content groupings with their own set of built-in reports to get you up and running quickly. Domains also act as primary filters that allow you to limit the scope of reports and drill down into your network with finer granularity.

Scenarios

The BigFix Administrator needs to keep track of data for computer hardware and software, endpoint vulnerabilities, software deployments, compliance remediation, and a host of other information. Here are some of the reports we will explore:

- BigFix Overview Report, which contains graphs and tables that visually represent the general state of your network, as well as the effectiveness of your BigFix deployment.
- Computer Properties List Report provides you with a list of properties of your BigFix Client computers, as well as their values.
- Open Vulnerabilities List Report displays Fixlet messages that are currently relevant.
- Critical Patch Compliance Reports show the administrator information about patches whose source severity is critical. There is a separate report for each operating system.
- Missing Patch Report, which shows the administrator a list of patches that endpoints are missing. There is a separate report for each operating system.
- Other Reports, like Action Lists and Analysis Lists, give the administrator a view into the view of what's going on in the BigFix environment.



Accessing BigFix Web Reports

1. Web Reports is a web console that we need to log into. You will find the login link and the credentials on the Solution Content page within SoFy.

ر ے	Solution Name bigfix-ver Version 0.1.0	
	< Back Solution	tion Content
6	HCL BigFix Demo Pack HCL BigFix Preview SoFy Access Control Service Solution Console Grafana Prometheus	
8	HCL BigFix Preview	
*		
٠	Quick Links 🕕	\$ Y
	HCL BigFix WebUI https://bigfix.webui.sbx0012.play.products.pnpsofy.com/login C Default Login User ID : BFXUser Password : BFXR0cks1	Open Link
	HCL BigFix WebReports https://bigfix-webreports.abx0012.play.products.pnpsofy.com/login	Open Link
⊕ [≈]	HCL BIgFix REST API https://bigfix-server.sbx0012.play.products.pnpsofy.com/api/help [Default Login User ID: BFXUser Password : BFXR0ckst	Open Link

- 2. Click the "Open Link" button to the right of "HCL BigFix Web Reports" and log in using the credentials provided in the Solution Content.
- 3. Once you log in, you will see a list of Categories to view reports:
 - a. Starred
 - b. My Authored
 - c. BigFix Management
 - d. Patch Management.

NOTE: There may be other categories, depending on what BigFix solutions you have installed.

4. Click on "Report List" in the top center to see a list of reports currently loaded into Web Reports.



BigFix Web Reports: Overview

- 5. Select **Overview** from the Report List.
- 6. The Overview report contains graphs and tables that visually represent the general state of your network, as well as the effectiveness of your BigFix deployment.



- 7. Next to the title of each report, there is a bracketed question mark [?], which you can click for additional information.
- 8. The following sections describe each of the graphs, charts, and tables presented in the Overview.
 - a. Total Issues: Reflects the total number of Fixlets (issues) for each computer and then groups them by their severity rating.
 - b. Total Number of Computers: Displays the number of computers with the BigFix agent installed on your network over the specified amount of time.
 - c. Computer Vulnerability Status: Represents computers grouped according to the severity of their applicable Fixlets.
 - d. Issues Remediated: Shows a count of the number of computers that have returned a status of "Fixed" in response to an action over a specified period of time.
 - e. Overall Statistics: displays important facts about your network.
 - f. Top 10 Critical/Important Issues Detected: Displays Fixlet messages that are currently affecting the largest number of computers in the network.

NOTE: To print the overview report with the graphs and tables, click on "Printable Version" at the top right. <u>Do not use</u> "Export to PDF" as it is not functional in this demonstration environment

NOTE: Web Reports users must have sufficient privileges to view reports. Users are considered to have sufficient privileges if they have full rights to all the computers on the server.



BigFix Web Reports: Computer Properties

9. Select Computer Properties List from the Report List.

10. This report provides you with a list of certain properties of your BigFix Client computers. Like many of the listed reports, this is derived from Explore Data, with specific filters and charts. These exist for your convenience, but you can also re-create them yourself with just a few mouse-clicks.

D BIGFIX Web Reports											
Explore D	ata Rep	ortList Adm	ninistration								
Computers	Computers Content Actions Operators Unmanaged Assets										
Computer Properties List											
 Filter 											
Results match all V c	Results match all x conditions										
	(a	-									
Computer V	Search Prop	erties									
 Charts 											
Edit Columns - So	ort 🗸										
Computer Name 🛦	BIOS	CPU	Free Space on System Drive	OS	RAM	Total Size of System Drive	User Name				
bigfix-client-rh8	<n a=""></n>	2200 MHz Xeon	496897 MB	Linux Red Hat Enterprise Linux 8.4 (4.19.167+)	120864 MB	499747 MB	<none></none>				
bigfix-client-ub20	<n a=""></n>	2200 MHz Xeon	495346 MB	Linux Ubuntu 20.04.2 LTS (4.19.167+)	120864 MB	499747 MB	<none></none>				
BIGFIX-CLIENT-W	01/01/2011	2200 MHz Xeon	19258 MB	Win2019 10.0.17763.1817 (1809)	122880 MB	20350 MB					
bigfix-relay-ub20	<n a=""></n>	2200 MHz Xeon	493895 MB	Linux Ubuntu 20.04.2 LTS (4.19.167+)	120864 MB	499747 MB	<none></none>				
bigfix-server	<n a=""></n>	2200 MHz Xeon	493895 MB	Linux Red Hat Enterprise Linux 8.4 (4.19.167+)	120864 MB	499747 MB	<none></none>				
bigfix-webui	<n a=""></n>	2200 MHz Xeon	496004 MB	Linux Red Hat Enterprise Linux 8.4 (4.19.167+)	120864 MB	499747 MB	<none></none>				

<< first < prev Showing items 1 - 6 of 6 next > last >>

You can select a filter to reduce the size of the list. The column headers refer to important computer properties, such as the BIOS date, the CPU type, free hard disk drive space, the operating system, memory, and username. These properties are standard for out-of-the-box BigFix clients. However, from the console, you can create new computer properties using relevance expressions, and they are also available here.

Add or Remove Report Columns

You can add or remove columns from Web Reports to add, remove or change the information displayed in the report.

- 1. Add or remove columns. Click the "Edit Columns" button above the Computer Name column and view the dropdown list.
- 2. You can add any of the properties listed in the "Available Columns" box



You can also type information into the space below "Available Columns" to find additional property information.

- a. We want to add a property that is not listed, like the distance the endpoint is from its Relay.
- b. In the box, type "distance"
- c. A new property appears in the "Available Columns" box
- d. Check the box next to the new property, and you will see the property appear in the "Current Columns" box
- e. The column also appears in the report as soon as you check the box.
- f. There is no "ok" or "apply" just click on the page, away from the column editor box. The new column appears to the right of the "Computer Name" column.
- g. To remove a column, click the "Edit Columns" button, and uncheck one of the checked boxes. The column is

<u>ו</u> :	s" to find additional property information.									
[Computers									
	Edit Columns 🗸 Sort 🗸	_								
	Available Columns									
	distance	Г								
	Distance to BES Relay									
	Current Columns									
	Expand	L								
L	Relevant Fixlets	F								
	Remediated Fixlets									
	Hide Individual Computers									

h.

and uncheck one of the checked boxes. The column is removed immediately.

Move Report Columns

You can move columns around in a report to change the overall display.

- 3. With the mouse, left click and hold the header of the column you wish to remove.
- 4. You will see a red vertical bar appear, depicting that column's location in the report.

omputers									
t • Search Computers									
Distance to BES Relay	BIOS	CPU	Free Space on System Drive	OS	RAM	Total Size of System Drive	User Name		
<not set=""></not>	<n a=""></n>	2200 MHz Xeon	496897 MB	Linux Red Hat Enterprise Linux 8.4 (4.19.167+)	120864 MB	499747 MB	<none></none>		
<not set=""></not>	<n a=""></n>	2200 MHz Xeon	495346 MD	Linux Ubuntu 20.04.2 LTS (4.19.167+)	120864 MB	499747 MB	<none></none>		
<not set=""></not>	01/01/2011	2200 MHz Xeon	19258 MB	Win2019 10.0.17763.1817 (1809)	122880 MB	20350 MB			
«not set»	«n/a»	2200 MHz Xeon	493895 MB	Linux Ubuntu 20.04.2 LTS (4.19.167+)	120864 MB	499747 MB	<none></none>		
0	<n a=""></n>	2200 MHz Xeon	493895 MB	Linux Red Hat Enterprise Linux 8.4 (4.19.167+)	120864 MB	499747 MB	<none></none>		
<not set=""></not>	<n a=""></n>	2200 MHz Xeon	496004 MB	Linux Red Hat Enterprise Linux 8.4 (4.19.167+)	120864 MB	499747 MB	<none></none>		
	t Search Computers Distance to BES Relay cnot set> cnot set> cnot set> 0 cnot set> 0 cnot set>	Search Computers Distance to BES Relay BIOS cnot seb- <n a=""> cnot seb- <n a=""> cnot seb- <n a=""> cnot seb- <n a=""> cnot seb- <n a=""> cnot seb- <n a=""> 0 <n a=""> ontot seb- <n a=""></n></n></n></n></n></n></n></n>	Search Computers Distance to BES Relay BIOS CPU cnds seb- <n a=""> 2200 MHz Xeon -snds seb- <n a=""> 2200 MHz Xeon -ond seb- 01/0/2011 2200 MHz Xeon -ond seb- 01/0/2011 2200 MHz Xeon -ond seb- en/a> 2200 MHz Xeon -ond seb- en/a> 2200 MHz Xeon -ond seb- <n a=""> 2200 MHz Xeon -ond seb- <n a=""> 2200 MHz Xeon</n></n></n></n>	Search Computers Distance to BES Relay BIOS CPU Free Space on System Drive cnot seb- <n a=""> 2200 MHz Xeon 495697 MB cnot seb- <n a=""> 2200 MHz Xeon 495294 MB cnot seb- <n a=""> 2200 MHz Xeon 195244 MB cnot seb- <n a=""> 2200 MHz Xeon 19228 MB cnot seb- <n a=""> 2200 MHz Xeon 493895 MB 0 <n a=""> 2200 MHz Xeon 493895 MB onb seb- <n a=""> 2200 MHz Xeon 493895 MB cnot seb- <n a=""> 200 MHz Xeon 493895 MB</n></n></n></n></n></n></n></n>	Search Computers Distance to BES Relay BIOS CPU Free Space on System Drive O5 cnot set> <n a=""> 2200 MHz Xeon 496697 MB Linux Red Hat Enterprise Linux 8.4 (4.19.167+) cnot set> <n a=""> 2200 MHz Xeon 495346 MB Linux Ubuntu 20.04.2 LTS (4.19.167+) cnot set> 0/10/2011 2200 MHz Xeon 19238 HB Win2019 100.017763.1817 (1809) cnot set> cn/a> 2200 MHz Xeon 493895 MB Linux Rod Hat Enterprise Linux 8.4 (4.19.167+) 0 cn/a> 2200 MHz Xeon 493895 MB Linux Red Hat Enterprise Linux 8.4 (4.19.167+) cnot set> cn/a> 2200 MHz Xeon 493895 MB Linux Red Hat Enterprise Linux 8.4 (4.19.167+) cnot set> cn/a> 2200 MHz Xeon 493895 MB Linux Red Hat Enterprise Linux 8.4 (4.19.167+)</n></n>	Search Computers Distance to BES Relay BIOS CPU Free Space on System Drive OS RAM cnot seb- <n a=""> 2200 MHz Xeon 495697 MB Linux Red Hat Enterprise Linux 8.4 (4.19.157+) 120664 MB cnot seb- <n a=""> 2200 MHz Xeon 495246 MB Linux Ubuntu 20.04.2 LTS (4.19.157+) 120664 MB cnot seb- 01/01/2011 2200 MHz Xeon 19288 MB Linux Ubuntu 20.04.2 LTS (4.19.157+) 120664 MB cnot seb- en/a> 2200 MHz Xeon 19289 MB Linux Ubuntu 20.04.2 LTS (4.19.157+) 120664 MB 0 en/a> 2200 MHz Xeon 493855 MB Linux Ubuntu 20.04.2 LTS (4.19.167+) 120664 MB 0 en/a> 2200 MHz Xeon 493855 MB Linux Ubuntu 20.04.2 LTS (4.19.167+) 120664 MB cnot seb- en/a> 2200 MHz Xeon 493855 MB Linux Red Hat Enterprise Linux 8.4 (4.19.167+) 120664 MB</n></n>	Search Computers Distance to BES Relay BIOS CPU Free Space on System Drive OS RAM Total Size of System Drive <nntseb-< td=""> <nfa> 2200 MHz Xeon 496697 MB Linux Red Hat Enterprise Linux 8.4 (4.19.167+) 12064 MB 499747 MB <nntseb-< td=""> <nfa> 2200 MHz Xeon 495246 MB Linux Ubuntu 20.04.2 LTS (4.19.167+) 12064 MB 499747 MB <nnts setb-<="" td=""> <nfa> 2200 MHz Xeon 19268 MB Win2019 10.0.17763.1817 (1809) 12280 MB 2030 MH <nnts setb-<="" td=""> <nfa> 2200 MHz Xeon 493895 MB Linux Red Hat Enterprise Linux 8.4 (4.19.167+) 12064 MB 499747 MB 0 <nfa> 2200 MHz Xeon 493895 MB Linux Red Hat Enterprise Linux 8.4 (4.19.167+) 12064 MB 499747 MB 0 <nfa> 2200 MHz Xeon 493895 MB Linux Red Hat Enterprise Linux 8.4 (4.19.167+) 12064 MB 499747 MB <nother< td=""> <nfa> 2200 MHz Xeon 493895 MB Linux Red Hat Enterprise Linux 8.4 (4.19.167+) 12064 MB 499747 MB</nfa></nother<></nfa></nfa></nfa></nnts></nfa></nnts></nfa></nntseb-<></nfa></nntseb-<>		

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5. Drag the column header to the left or right until the red line appears where you want the column to be.

Edit Columns - So	rt • Search Computers								
Computer Name	Distance to BES Relay	BIOS	CPU	Free Space on System Drive	OS		RAM	Total Size of System Drive	User Name
bigfix-client-rh8	«not set»	<n a=""></n>	2200 MHz Xeon	496897 MB	Linux P	ded Hat Enterprise Linux 8.4 (4.19.167+)	120864 MB	499747 MB	«none»
bigfix-client-ub20	«not set»	<n a=""></n>	2200 MHz Xeon	495346 MB	Linux U	Jountu 20.04.2 LTS (4.19.167+)	120864 MB	499747 MB	<none></none>
BIGFIX-CLIENT-W	<not set=""></not>	01/01/2011	2200 MHz Xeon	19258 MB	Win201	9 10.0.17763.1817 (1809)	122880 MB	20350 MB	
bigfix-relay-ub20	<not set=""></not>	<n a=""></n>	2200 MHz Xeon	493895 MB	Linux L	Jountu 20.04.2 LTS (4.19.167+)	120864 MB	499747 MB	<none></none>
bigfix-server	0	<n a=""></n>	2200 MHz Xeon	493895 MB	Linux P	ad Hat Enterprise Linux 8.4 (4.19.167+)	120864 MB	499747 MB	<none></none>
bigfix-webui	<not set=""></not>	<n a=""></n>	2200 MHz Xeon	496004 MB	Linux P	Red Hat Enterprise Linux 8.4 (4.19.167+)	120864 MB	499747 MB	<none></none>

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6. Release the mouse button and the column has been moved.

Edit Columns - So	rt •							
Computer Name	Distance to BES Relay	BIOS	CPU	OS	Free Space on System Drive	RAM	Total Size of System Drive	User Name
bigfix-client-rh8	<not set=""></not>	<n a=""></n>	2200 MHz Xeon	Linux Red Hat Enterprise Linux 8.4 (4.19.167+)	496897 MB	120864 MB	499747 MB	<none></none>
bigfix-client-ub20	<not set=""></not>	<n a=""></n>	2200 MHz Xeon	Linux Ubuntu 20.04.2 LTS (4.19.167+)	495346 MB	120864 MB	499747 MB	<none></none>
BIGFIX CLIENT-W	<not set=""></not>	01/01/2011	2200 MHz Xeon	Win2019 10.0.17763.1817 (1809)	19258 MB	122880 MB	20350 MB	
bigfix-relay-ub20	<not set=""></not>	<n a=""></n>	2200 MHz Xeon	Linux Ubuntu 20.04.2 LTS (4.19.167+)	493895 MB	120864 MB	499747 MB	<none></none>
bigfix-server	0	<n a=""></n>	2200 MHz Xeon	Linux Red Hat Enterprise Linux 8.4 (4.19.167+)	493895 MB	120864 MB	499747 MB	<none></none>
bigfix-webui	<not set=""></not>	<n a=""></n>	2200 MHz Xeon	Linux Red Hat Enterprise Linux 8.4 (4.19.167+)	496004 MB	120864 MB	499747 MB	<none></none>

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BigFix Web Reports: Open Vulnerabilities

7. Select **Open Vulnerabilities List** from the Report List.

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6

81GF1X	Neb	Reports			
Explor	re Data	Report List Administration			
Comput	ers I Cor	ntent Actions Operators Unimanaoed Assets			
		12.00			
en vulner	abiliti	es List			
Filter					
Charls					
ontent					
lit Columns •	Sort -				
ogress		Name	Sitename	Applicable Computer Count	Deployed Action Count
	0%	2995547 Manage SMBh1 in Windows and Windows Server - Diable Worksround (Remove SMB v1 completely) - Windows 8.1 / Windows 10 / Windows Server 2012 #2 / Windows Server 2016 - KIL296547	Patches for Windows	1	0
	0%	2868725: Security advisory: Update for disabling RC4 - Enable Workaround (Completely disable RC4)	Patches for Windows	1	0
	0%	4404174: Intel microcode updates - Windows Server 2010 - KB4404174 (x54) (V1.0) (Superieded)	Patches for Windows	1	0
	0%	440H174: Totel microcode updates - Windows Server 2019 - KBH494174 (x64) (V4.0) (Superseded)	Patches for Windows	1	0
	0%	4562902: Cumulative Update Preview for JNET Framework 3.5 and 4.7.2 for Windows Server 2019 - Windows Server 2019 - JNET Framework 3.5(4.7.2 - K04562902 (xb4) (Supersided)	Patches for Windows	1	0
	0%	4576049: Cumulative Update Preview for JNCT Framework 3.5 and 4.7.2 for Windows Server 2019 - JNCT Framework 3.5/4.7.2 - KD4576049 (xb4)	Patches for Windows	1	0
	0%	4580422: Cumulative Update Preview for JNET Framework 3.5 and 4.7.2 for Windows Server 2019 for x64 - Windows Server 2019 - JNET Framework 3.5/4.7.2 - KB4580422 (x64)	Patches for Windows	1	0
	0%	4589208: Intel microcode update - Windows Server 2019 - K04589208 (xd4) (V2.0)	Patches for Windows	1	0
	0%	4589208: Intel microcode update - Windows Server 2019 - KB4589208 (x64) (Superseded)	Patches for Windows	1	0
	0%	4596451: Cumulative Update Preview for JNET Framework 3.5 and 4.7.2 for Windows Server 2019 - Windows Server 2019 - JNET Framework 3.5/4.7.2 - KD45963003 (x64) (Superseded)	Patches for Windows	1	0
	0%	4596H99: Cumulative Update for JHET Framework 3.5 and 4.7.2 for Windows Server 2019 - Windows Server 2019 - JHET Framework 3.5/4.7.2 - KB4586675 (x64) (Superseded)	Patches for Windows	1	0
	0%	4602298: Cumulative Update Preview for JNET Framework 3.5 and 4.7.2 for Windows Server 2019 - Windows Server 2019 - JNET Framework 3.5/4.7.2 - KD4601558 (x64) (Soperseded)	Patches for Windows	1	0
	0%	S000654: Cumulative Update Preview for Windows Server 2018 - Windows Server 2019 - KBS000854 (x64) (Superseded)	Patches for Windows	1	0
	0%	5001384: Cumulative Update Preview for Windows Server 2019 - Windows Server 2019 - Kil5001384 (x64) (Superseded)	Patches for Windows	1	0
	0%	5001568: Cumulative Update for Windows Server 2019 - Windows Server 2019 - KB5001568 (xd4) (Superseded)	Patches for Windows	1	0
	0%	5001638: Cumulative Update for Windows Server 2019 - Windows Server 2019 - KB5001038 (x64) (Superseded)	Patches for Windows	1	0
	0%	5001879: Cumulative Update for JNET Framework 3.5 and 4.7.2 for Windows Server 2019 - Windows Server 2019 - JNET Framework 3.5/4.7.2 - KB4601558 (nH)	Patches for Windows	1	0
	0%	5003217: Cumulative Update Preview for Windows Server 2019 - Windows Server 2019 - Kil5003217 (x54)	Patches for Windows	1	0
	0%	5003396: Cumulative Update Preview for JNET Framework 3.5 and 4.7.2 for Windows Server 2019 for x64 - Windows Server 2019 - NET Framework 3.5(4.7.2 - KB5003258 (x64)	Patches for Windows	1	0
	0%	5003778: Cumulative Update for JNET Framework 3.5(4.7.2 for Windows Server 2019 - JNET Framework 3.5(4.7.2 - K05003258 (x64)	Patches for Windows	1	0
	0%	Categorae ClientDevice clienta	BES Support	6	0
	0%	Categorize W/S clients	BES Support	6	0
	0%	Categorize RVU clients	BES Support	6	0
	0%	Change WebUI logging filter	BES Support	1	0

- 8. This report displays Fixlet messages that are currently relevant. The first column provides a quick visual representation of the progress of each vulnerability. In addition, the report shows the name, site applicable computer count, and deployed action count to complete the report. This report is useful to help you track those issues that can expose your network to potential problems.
- 9. We want to add some information to this report we want to see which computers are affected by these vulnerabilities.
 - a. Click the "Edit Columns" button
 - b. At the bottom of the list in the "Expand" box, select "Applicable Computers"
 - c. We can now see the computer names on the right that these vulnerabilities apply to.
 - d. Note that when we add the computer, the "Name" column now contains duplicate entries, as more than one endpoint may have the same vulnerability

Content							
Edit Columns 🗸	Sort 🗸	Search Content]				
Available Colum	nns						
C Activated By (Applycic)		- A				
Activation Tim	e (Analysis)	is)	pl				
Applicable Computer Count							
Category			F				
Comments			Ē				
Deployed Action	on Count						
Download Size	ė						
🗌 ID							
Current Column	IS		51				
Applicable Cor	nputer Co	ount					
Deployed Action	on Count		n				
Name			e				
Progress			e				
Sitename			e)				
Expand			n				
Applicable Cor	nputers		F				
C Remediated Co	omputers		e1				



(HCL S	oFy Custo	mer Exei	rcise Guide				
Bi	gFix Web R	eports: N	Missing	Patches				
1. 2. 3. 4.	Select Missing There are no re scenario, can y Click on the plu problem. Change "MS15	Patch Repor ecords found ou guess wh us (+) sign ne " in the last	rt 2015 (Wi d. Based or by there are ext to "Filte Filter entry	ndows) from the Re n the work we did w e no records found v er" – at the bottom o v to "MS" and the cu	port List. vith Filters in tl with this repor of the filter yo urrent year.	ne previous t? u will see the	Content Edit Columns Progress No records found. << first < prev SI	Sort - Sou
		and Content	► Name	• •	contains	✓ MS15		
5.	For example, it	the current	year is 202	22, you will change t	the content in	the box to "MS2	22″	
		and Content	► Name	e v	contains	✓ MS22		
7.	Notice there is Save Report A when the aster	now an aste s button and risk disappea	erisk (*) ne: d save it as ars and a ba	the results chang xt to the report nam "Missing Patch Report ar appears above th	e in the cont he, which mea ort (Windows) e report name	ns the report ha " – you will know indicating Repo	s been changed v the report ha ort Saved.	d. Click the s been saved

BigFix Web Reports: Action and Analysis Lists

- 1. Select Action List from the Report List.
- 2. The Action List contains information about all the BigFix Actions you see in the WebUI. You can click on the Action Name in the first column to get details about each Action.
- 3. Click the Edit Columns button. Notice that unlike Scenario 4 you do not have the ability to expand the content to see applicable and remediated computers, because this content is about the action that has been issued, not the endpoints it has been issued to. You can however, see the number of endpoints that have been Fixed and Failed, and you can add columns to include property results like Evaluating, Pending Downloads, Waiting, Running, and others. As we have done before, try it out – add and/or remove some columns to see how the report information changes.
- 4. Select Analysis List from the Report List.
- 5. The Analysis List contains information about all the BigFix Analyses. Analyses are groups of properties that return information about your BigFix environment, like application information, BigFix agent information, hardware information, and much more.
- 6. Click the name of one of the Analyses, like **Bandwidth Throttling Status**
- 7. Click on the View Description link
- 8. Another window opens giving a detailed description of what the analysis is, as well as the properties included in it.

NOTE: The content displayed in the Description view is a rendering of content from the BigFix Console, and while there are references to clicking links, there are no links or actionable data within the description page

Results mat	ch all 🗸 conditions.
Co	mputer v Search Properties
Name:	Bandwidth Throttling Status
Name: Sitename:	Bandwidth Throttling Status BES Support
Name: Sitename: Datasource:	Bandwidth Throttling Status BES Support bigfix-localdb
Name: Sitename: Datasource: Issuer: Time Issued:	Bandwidth Throttling Status BES Support bigfix-localdb

View Description



BigFix Web Reports: Exploring Data

1. Select **Explore Data** from the menu bar at the top. The resulting report shows Computer information, which corresponds to the list under the "Explore Data" button.



2. Click through the options.

- a. Computers the current view. Lists computer name, IP Address, Operating System, CPU, and last report time
- b. Content CURRENTLY NOT AVAILABLE DUE TO A DATABASE ERROR IN KUBERNETES. The default is all visible content, which includes Fixlets, Tasks, Analyses and Baselines. You can click on the Name of the content in the first column to get details about each.
- c. Actions as in scenario 7, this report contains information about all the BigFix Actions you see in the WebUI. You can click on the Action Name in the first column to get details about each Action.
- d. Operators this report contains information about the BigFix WebUI operators (Note: This is not a list of the Web Reports operators). You can see the type of user, the last time they logged in, if they can view custom content, how many endpoints they can administer, and how many actions they have been deployed.
- e. Unmanaged Assets you will not have any results in this report view, but this view shows the endpoints that have been discovered by BigFix via an NMAP scan, but do not have the agent currently installed.
- 3. Return to the Computers report view. We are going to modify this data view by changing the Filter.
 - a. Change the filter to "Computer" "Computer Group" "is" "BigFix Relays" and click "Apply Filter"



The number of computers changes because we are filtering the original list.

Feel free to explore the data on this page by adding columns and filters. Remember that if you make a change to the filter, it will not take effect until you click **Apply Filter**

Software Distribution Using the BigFix WebUI

Executive Summary

BigFix provides a mechanism to package and deploy software to endpoints across your network from a single location. BigFix gives you the ability to maintain control and visibility into software delivery and installation.

Some of the most significant features of BigFix Software Distribution include:

- Dynamic and policy-based bandwidth throttling to push large files over distributed networks without impacting lineof-business bandwidth.
- Support for roaming endpoints with pre-caching relay infrastructure.
- Features to optimize dynamic and evolving networks.
- Intelligent software distribution based on endpoint characteristics.
- Software distribution wizards and user self-provisioning.
- Continuous software application license usage and metering, including support for existing software repositories.
- Low-cost scalability with minimal infrastructure requirements.

Scenario

With BigFix Software Distribution you can ensure each software deployment is successful, whether you are distributing one software application to a single computer, or multiple software applications to a larger group of endpoints. BigFix handles prerequisites like Visual C++ components or .net Framework to ensure a successful deployment.

BigFix provides the ability to apply logic to a software distribution, so that endpoints can be targeted based on their properties, and software can be installed, upgraded or skipped based on its properties. For instance, we can setup a package for Google Chrome that contains an install for 32-bit and 64-bit Windows computers, as well as the install for Mac OS. What is more, the software distribution package can include the latest vendor updates, so rather than creating a new application update each time one is released, the latest update is distributed as part of the base package. This can reduce the requirement for deep knowledge of the requirements for every operating system, as the endpoints install the software that is applicable to them and skip the software that is not.

Another example is the "Click-to-Run" version of Microsoft Office. This can be packaged so the payloads are distributed to the endpoints while on the corporate network but downloaded directly from Microsoft if the endpoint is in a home office.



Take a minute to look around and see what information is available on this page. This is your "at-a-glance" information center for managing your infrastructure. This is data available to you without having to initiate an endpoint scan or run a report against a database. These tiles are customizable as well – you can re-arrange them or gather different data than what is currently visible.

deployed in the last Stickers

Obtain Software for Package

We will use Google Chrome for our software package. Note that you can use the standard executable, but we will download the Windows Installer (MSI) file for use in our application.

- 1. Navigate to https://chromeenterprise.google/browser/download/
- 2. Choose the top option, Chrome bundle for Windows 64-bit
- 3. Once downloaded, extract the installers from the zip file
- 4. The name of the file we will use is **GoogleChromeStandaloneEnterprise64.msi**. Depending on your version, the name of you file *may* be slightly different

Add Software

1.	From the WebUI Overview Dashboard, Click Apps -> Software.	es	Apps -	Deployments
	Notice that there are no software packages in our environment.		Content	
			Custom	
		-	MCM	-
		lage	Patch	
		hes	Patch Po	licies
		ckag	Profile	
		S	Query	
2.	Click Add Software in the top right corner to create a software package		Software	

- In the resulting box (Where is the Software file?), click the Choose File button and navigate to the location where you saved GoogleChromeStandaloneEnterprise64.msi, and click Open
- 4. Click Upload

Where is the Software file?	
No file chosen	http://www.example.com/applicatic
Choose File	Download file at Task runtime Optional Usemame
	Optional Password
Cancel	Upload



NOTE: If your BigFix Server is running on the Windows platform you will not see the Smart Targeting option. This is because BigFix handles this process natively within Windows. However, our BigFix Server is running on Linux, which is why we see this option. We will go through the Smart Targeting exercise so that you can see the process, and so that our software application information is accurate.

- 5. **Smart Targeting**. BigFix can automate gathering of application properties and targeting software to applicable devices.
 - a. Click the Smart Targeting link.
 - b. Package Inspector is required to obtain your software package metadata for smart targeting. Click the Package Inspector link to download the Package Inspector and save it in the same location as the setup file, to avoid having to specify a file path in the next step.
 - c. Open a command prompt and run the following command on your Windows workstation to get the smart targeting information: *PackageInspector.2.0.1.1.exe -targetfile chromesetup.exe -output metadata.json*
 - d. Click the **Upload File** box and select the **metadata.json** file you just created.

Web Browsers Web Browsers (New Categor

Smart Targeting automates applicable devices	
Package Inspector is required to obtain your software package metadata for smart targeting.	
1 Run the following command on your Windows machine to generate a metadata.json file	
PackageInspector.2.0.1.1.exe -targetfile 'Type in the file path here '-output metadata.json	
2 Upload the metadata.json file here metadata.json Change File	-
Cancel Upload	

- e. Click the **Upload** button in the bottom right corner.
- 6. Notice that the Version and the Publisher have been automatically populated, based on the contents of the json file
- 7. The **Software Name** field is also automatically populated, based on the name of the executable. We will change the name to **Chrome Install for Windows**.
- 8. Notice that **Windows** is already selected for the operating system
- 9. Enter **Web Browsers** in the **Category** box. Notice that this is listed as a **New Category**. Make sure you click on the blue box underneath what you typed to add the category to the software package.

Category

10. **Description**. Enter a meaningful description for your software package.

See the screen capture below to confirm your settings Note that our json file has a different name, because we named it to correspond with the file it represents:

	76.20 MB	Change F
Software Name *		
GoogleChromeStandaloneEnterprise64.msi		
Version *	Publisher *	
68.104.49283	Google LLC	
Operating System Linux OS X Solaris Windows	Other	
Category Editegory		
Description		
B/UBSX'X, A· ====	- III+ X 4>	
Describe the current version of the software. Provide additional ins	structions that will aid in the deployment process.	
Smart largeting	ed from the software packages	
Smart Targeting Automatically targets applicable devices based on metadata extract		
Automatically targets applicable devices based on metadata extract		
Automatically targets applicable devices based on metadata extract Change File googlemsi.json		

11. Accept the default Configuration 1 as the Name	
12. Accept Master Action Site as the default Site	
13. Expand the Install action	
a. Notice that the Action information is already populated because we chose the MSI for our inst	all. The
Parameters are already populated, as is the command line.	
14. Notice the software package automatically includes an Install , with an optional Uninstall .	
a. Expand the Uninstall option and toggle the On/Off to On (On is in the blue square when it is e	nabled)
15. Click Save to save the software package	
See the screen capture below to confirm your settings:	
Configuration 1	+ Add the configuration
Name *	
Configuration 1	
Site * Master Action Site (Default)	
Action	
Install O	~
Name * Deploy: Configuration 1-GoogleChromeStandaloneEnterprise64.msi	
> No prerequisites defined	
Run command as Sustam Liser Current Liser Lional Liser	
Darametere	Use Command Line
	Use command Line
/qn ×	
Command Line Preview	
msiexec.exe /i "GoogleChromeStandaloneEnterprise64.msi" /qn	
	^
On Off	
Name * Uninstall: Configuration 1-GoogleChromeStandaloneEnterprise64.msi	
Run command as	
System User Current User Local User	Use Command Line
Parameters	ose command Line
/qn ×	
Command Line Preview	
msiexec.exe /x "{61D674B3-02A0-3DFF-8A11-08170BB9007B}" /qn	

We have just created a simple software distribution package for installing Google Chrome on Windows. There are more settings we will add to this software package, but for now, this package is ready to deploy to our Windows endpoints



BigFix Software Distribution: Deploy a Software Package, Method 1

In this exercise we are going to deploy a software package based on the Software Packages available in our environment

The BigFix WebUI returns us to the application page after saving the new application:

O applicable devices reported 🛦		eptoy Soltware
O open deployments	Det	ails
Q designments with >10% failed	Ver ha	ion 68,104,46280
O deployments in the last 24 hours	05	Windows
Coopergenerates in the task 24 mounts	1.27	76.20 M/8
	Ow	od By BFXUser
escription	Mo	ifed 16 Aug 2021 11:13
is softwain is available in multiple configurations to best fit your cautomized displayments.	Citi Do	Software Int Software
unitable continuestore	De	lovment Tasks
and the control of a second		Deploy: Configuration 1-GoogleChromeStandaconeEnterprise64.m
Configuration 1	~	

1. Click on **Apps** -> **Software**.

NOTE: We could deploy the software from the previous page, and in production we might do this, but for our exercise, and in order to see a particular feature, we will return to the Software Package list

NOTE: When we created the software package, you created new content in BigFix. The endpoints in the environment <u>automatically</u> evaluate new content added to or created in BigFix to determine if it is applicable to them. For this reason, the Software Package list may be blank. You can either wait for the endpoints to finish evaluating the content, you can refresh the web page, or you can click on the **Applicable Devices** filter to remove the filter. The BigFix WebUI automatically applies this filter so you can see at a glance, what software is applicable to the devices in your environment

2. Check the box next to the software package you created, and click the blue **Deploy** button



- 3. The **Deploy Software** wizard appears, with the software package selected.
- 4. Select action. Click the Select an action... link

Select software	Select action	Select targets Configure		
1 Software			Clear All (1) ໂ	<u>ו</u>
GoogleChromeStandaloneEnterprise64.msi	Select an action 🔥		ti v	~
Jnauthorized duplication prohibi	ted	Copyright 2021 HCL Technologies Limited, All Rights Reserved		Page

 Click on the grey Select a configuration box Click on the Configuration choice. In our exercise we will choose the Deploy: Configuration 1 option. 	 GoogleChromeStandaloneEn Action Description NoDescription Select action Select a configuration 	terprise64.msi	Se ▼	elect an action 🔥
5. Click the blue Next button on the right	Select a configuration Configuration 1 Deploy: Configuration Uninstall: Configuration	1-GoogleChrome n 1-GoogleChrom Deployment Deployment N GoogleChror V 1 Softwa	StandaloneEn eStandaloneE t Summary Name neStandalone are	terprise64.msi Enterprise64.msi
 6. Select Targets. Select the box next to the endpoint 6. Click the blue Next button on the right ✓ Select software ✓ Select software ✓ Select action Target by device Target by group 1 device Yeset all filters @ Reset columns 	oint(s) you wish to deploy soft e select targets	ware to	Configure 20 • < 1	Next →
1 Item Selected View Selected only				
Computer Name 🗘 Critical Patches Applicable P U Deployments	Device Type OS	Groups	IP Address	DNS Name
	►	•		
Type for search				

8. **Configure**. In this step we will specify how and when this software package is to be deployed, if and how the end user will interact, and actions to take after the software package has been deployed. There are five screens, and we will go through each one, setting behavior and constraints that correspond to our scenario.

Instructions for each page in the **Configure** step follow, along with settings for each.



9. **Configure Options: Run**. This page specifies schedule information for deploying our software package. We will accept the defaults on this page.

Select software	Select action	Select targets	Configure	Deployment Summary
<				Deployment Name
Run 🥖	Time Zone			GoogleChromeStandaloneEnterpri
Users 🖌	Client Time • 🕐			1 Softwara
Messages 🌶	Affects all time-related parameters you set on this page			1 dortware
offer /				 1 Target
nst-Action	Start			Configure
ust material p	mmediately ⑦ ○ 08/16/2021 11:22 At	~ N		Pren
	End			Time Zone On Client Local Time
	O No end date () () (11:22 AM	~ W		() Start
				() End
				08/18/2021 11:22 AM
	Run between hours ⑦			Users Users
	From 11:22 AM • to 01:22 AM •			
				- Post-Action
	Run on selected			Back
	(MON) (TUE) (WED) (THU) (FRI) (SAT) (SUN)			
	Run Only When			
	Active Directory Path + matches +			
	Retry			
	On failure, retry 3 🗘 times			
	Reapply action			
	Reapply action			
	Download			
	Download prerequisite files before the deployment starts ()			
	Stagger actions			
	and the neurons			

10. **Configure Options: Users**. This page specifies how the application deployment behaves according to logged-in users. We will not make any settings changes on this page.

Deploy Software

(✓) Select action (✓) Select targets Configure	Deproyment Summary
Run action Image: Seven if there is no logged in user. Display the user interface to specified users Image: When at least 1 of the specified users is logged in. Display the user interface only to those users Image: Only when no user is logged in	Deployment Name GoogleChromeStandaloneEnterprise v 1 Software v 1 Target Configure
Select users All users Users in a local session Users in a group	✓ Run ✓ Users G. Run action Even if there is no logged in user. Upspay the user interface to specified users All users ✓ Post-Action Back Deploy ③
	Run action Image: Construction of the specified users interface to specified users Image: Construction of the specified users is logged in. Display the user interface only to those users Image: Construction of the specified users is logged in. Select users Image: Construction of the specified users is logged in. Users in a local session Image: Users in a group

11. **Configure Options: Messages**. This page allows us to display information about a pending and/or running action for end-users. We will not be using messages, as our install is quiet and requires no end-user interaction.

Select soft	vare	Select action	Select targets	Configure	Deployment Summary
<i>,</i>			C mint mann	Oj	Deployment Name
Run	1	Before running action			GoogleChromeStandaloneEnterprise
Users	1	Send this as a required action 🕜			~ 1 Software
Messages	1	While running action			
Offer	1	Display a running message 🕥			 1 Target
Post-Action	1				Configure
					🗸 Run
					V Users
					 Post-Action

12. **Configure Options: Offers.** This page allows logged-on users to run the patch deployments outside of the "Run" window. We will not be using Offers.

Select software	Select action	Select targets	Deployment Summary
0			Deployment Name
Run 🖌	Offer		GoogleChromeStandaloneEnterprise
Users	Send this as an offer ③ Offer Description		✓ 1 Software
Offer	B I Y & G X' X, A ⊠ ⊟ ≡ Ø	- III y* Ø	✓ 1 Target 0
Post-Action			Configure
			🗸 Run
			🗸 Users
	Send only to Software Distribution Client dashboard		 Post-Action
	Notify me of offers		Park. Denter O

- 13. Configure Options: Post Action. This page allows us to restart or shut down endpoints after distributing software.
 - There is no need to reboot our endpoint after installing the software, so we will accept the **Do nothing** default selection.

> Select sof	tware	Select action	Select targets	Configure	Deployment Summary	
		~	<u> </u>		Deployment Name	
Run	1	After the action is run			GoogleChromeStandaloneEnterprise	
Users	1	Do nothing			v 1 Software	
Messages	1	O Restart the computer				
Offer	1	O Shut down the computer			1 Target	
Post-Action	1				Configure	
					V Run	
					Users	
					~ Post-Action	
					 After the action is run Do nothing 	
					Back Deploy O	

14. Verify your selections as necessary. When you are satisfied with the selections, click the blue **Deploy** button in the right sidebar.



BigFix Software Distribution: Deploy a Software Package, Method 2

In this exercise we are going to deploy a software package based on Software Packages applicable to a particular device

- 1. Click on Devices.
- 2. Check the box next to the device you deployed the software to in the previous exercise
- 3. Click Deploy
- 4. Scroll down and select **Software** at the bottom of the drop-down list

6 de	vices						
1 Ite	m Selected 📃 V	ew Selec	ted only	Deploy 🔺 Adminis	tration +	Configuration -	
	Computer Name 🔩		Critical	MDM Action MDM Policy	î.	Deployments	Device Typ
	Type for search			MDM Policy Group	÷	\$	
v	BIGFIX-CLIENT-W	ø	Yes	Patch Profile	22	9	Server
	bigfix-client-ub20	٥	No	Software	.13	5	Server
	bigfix-server	٥	No		13	11	Server
	bigfix-client-rh8	٥	No		12	0	Server
	bigfix-webui	ø	No		12	7	Server
	bigfix-relay-rh8	٥	No		12	7	Server

- 5. The Deploy Software wizard appears.
- 6. Check the box next to the software package we just deployed
- 7. Click the blue Next button

	Selact enflware	1		0.	elect a	ction	Config	re		Deployment Summ	1 ary
Select largers	U Select Solimore	Heci sonware		0.	deleti attivi		U comig	Compare		Deployment Name	
3 software packages 🛛 🖓 Reset all filters 😭 Reset column	🗰 🥨 No relevant						View: 20 🔻	< 1 ▼ >	1 of 1 pages	GoogleChromeStanda	aloneEnterprise
1 Item Selected View Selected only										 1 Target 	3
Software Name	Description	Open Dep	loy † ₆	Applicable D.,	14	os	Publisher	Owned By	Last Up	 1 Software 	
Type for anatch									mm/dc	GoogleChromeS	tandaloneE
ChromeSetup.exe	Description	•	0		1	windows	Google LLC	BFXUser	5 hours as	Ldit Action	
G GoogleChromeStandaloneEnterprise64.msi	SW package I am going	•	1		1	windows	Google LLC	BFXUser	26 minute	Back	$_{\rm Next} ightarrow$
GoogleChromeStandaloneEnterprise64.msi	Going to deploy this, th		0		1	windows	Google LLC	BFXUser	24 minute		

- 8. Because we started on the Device page, the target device is already selected.
- 9. Click the **Select an action...** link

Deploy Software

Select targets	Select software	Select action	Configure	
1 Software			Clear All (1)	đ
GoogleChromeStandaloneE	interprise64.msi Select an action 🔥		<u> </u>	
Page 104	Copyright 2021 HCL Technologies	Limited, All Rights Reserved	Unauthorized duplication prohi	oitec



13. **Configure**. In this step we will specify how and when this software package is to be deployed, if and how the end user will interact, and actions to take after the software package has been deployed. There are five screens, and we will go through each one, setting behavior and constraints that correspond to our scenario.

NOTE: We will not be making any changes to the **Configure** section of the **Deploy Software** wizard. Instructions for each page in the **Configure** step follow for your information, along with settings for each. You may, however, click the blue **Deploy** button if you are already familiar with the **Configure** options.

14. **Configure Options: Run**. This page specifies schedule information for deploying our software package. We will accept the defaults on this page.

Select software	Select action	Select targets	Configure	Deployment Summary
Run	Time Zone	ourset taigets	U Uningit	Deployment Name GoogleChromeStandaloneEnterpris
Users 🖌	Client Time - (?) Affects all time-related parameters you set on this page			 1 Software
Offer /				1 Target
	Start () Immediately () O 08/16/2021 11.22 AM	*		Configure
	End No end date (1) No end date (1) (1) (2) (3)			Time Zone On Client Local Time O Start Immediately O End 06/10/2021 11:22 AM.
	Run between hours ⑦ □ From 11:22 AM ▼ to 01:22 AM ▼			y Users
				Post-Action
	Run on selected MON (TUE) (WED (THU) (FRI) (SAT) (SUN)			Back Deploy G
	Run Only When			
	Active Directory Path - matches -			
	Retry On failure, retry			
	Reapply action Reapply action			
	Download Download prerequisite files before the deployment starts (?)			
	Stagger actions			
	Start time over 0 2 hours 0 2 minutes to reduce net	twork load		

15. **Configure Options: Users**. This page specifies how the application deployment behaves according to logged-in users. We will not make any settings changes on this page.

Run • Run action GoogleChar Users • • Exployment Messages • • • Offer • • • • Past-Action • • • • Select users • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • • •	ne Handalara Estancias		Configure	Select targets	Select action	software	Select soft
Run Run action GoogleChar Users Other is no logged in user. Display the user interface only to those users Other Other is no logged in Other is no logged in user. Display the user interface only to those users Image: Target Image: Target Configure Image: Target Image: Target <th>Manufatan a Patanada a</th> <th>Deployment Name</th> <th>•</th> <th>0</th> <th>0</th> <th></th> <th>-</th>	Manufatan a Patanada a	Deployment Name	•	0	0		-
Luers Devin If there is no logged in user. Display the user interface only to those users Owhen at least 1 of the specified users is logged in. Display the user interface only to those users Only when no user is logged in Interface Only when no user is logged in. Display the user interface only to those users Only when no user is logged in. Interface Only when no user is logged in. Only when no user is logged in. Select users Olivers in a local session Ousers in a group Select users Ousers in a group Ousers in a group Ousers in a group Ousers in a group Ousers in a	AundationeEnterprise	GoogleChromeStandalo			Run action	1	Run
Messages Other test 1 of the specified users is logged in. Display the user interface only to those users Other Other Only when no user is logged in Other Othe		- 1 Software		sers	• Even if there is no logged in user. Display the user interface to specifie	1	Users
offer Only when no user is logged in Post-Action Select users Select users Olsers in a local session Ousers in a group.	5	· · · · · · · · · · · · · · · · · · ·		ace only to those users	O When at least 1 of the specified users is logged in. Display the user in	1	Messages
Post Action Configure Select users Image: Configure Image: Configure Image: Configure Image: Configure <td>8</td> <td> 1 Target </td> <td></td> <td></td> <td>O Only when no user is logged in</td> <td>1</td> <td>Offer</td>	8	 1 Target 			O Only when no user is logged in	1	Offer
Select users Run All users Users in a local session Users in a group Cusers in a group Cusers in a group Cusers in a group Cusers in a group Cusers in a group Cusers in a		Configure					Post-Action
All users Users in a local session Ousers in a group		🗸 Run			Select users		
Users in a group Users in a group		o Users			All users		
G (kun O Users in a group					O Users in a local session		
10 st	here is no logged in play the user interfac	Even if there is no user. Display the					
A Sele	ied users dusers	to specified users			O		
All u		All users					
✓ Post-Ac	ē	 Post-Action 					
	-						
Back	Deploy 💿	Back					



16. **Configure Options: Messages**. This page allows us to display information about a pending and/or running action for end-users. We will not be using messages, as our install is quiet and requires no end-user interaction.

Select softy	ware	Select action	Select targets		Deployment Summary
,		S management		<u> </u>	Deployment Name
Run	1	Before running action			GoogleChromeStandaloneEnterprise
Users	1	Send this as a required action 🕜			- 1 Software
Messages	1	While running action			
Offer	1	Display a running message ()			1 Target
Post-Action	1				Configure
					🗸 Run
					Vusers
					 Post-Action

17. **Configure Options: Offers.** This page allows logged-on users to run the patch deployments outside of the "Run" window. We will not be using Offers.

Deploy Software

Select soft	ware	Select action	Select targets	Configure	Deployment Summary
Run	/	offer			Deployment Name GoogleChromeStandaloneEnterprise
Users Messages	1	Send this as an offer ⑦ Offer Description			✓ 1 Software
Offer	1	B I ⊻ & 6 X X, A ⊠ ≡ ∅ -	₩ y [*] Φ		v 1 Target
Post-Action	1				Configure V Run V Users
		- Send only to Software Distribution Client dashboard			V Post-Action
		Notify me of offers			Back Deploy ()

- 18. Configure Options: Post Action. This page allows us to restart or shut down endpoints after distributing software.a. There is no need to reboot our endpoint after installing the software, so we will accept the Do nothing
 - default selection.

 Select software 	Select action	Select targets	Configure	Deployment Summary
	<u> </u>	0	•	Deployment Name
Run 🖌	After the action is run			GoogleChromeStandaloneEnterprise
Users 🅜	Do nothing			1 Softworp
Messages 🖌	O Restart the computer			V I Software
Offer /	O Shut down the computer			 1 Target
Post-Action	0			Configure
				v Run
				Heats
				Users
				~ Post-Action
				After the action is run Do nothing
				Back Deploy O
	The second second			

- 19. Verify your selections as necessary. When you are satisfied with the selections, click the blue **Deploy** button in the right sidebar.
- 20. You may now watch the application deployment progress in the Deployment window

nent Status					Stop C	epicyment
					Behavio	· · · · ·
and the second s					Type	Other Single Deployment
heteday					Start	immediately
65	20%	42%	60%	30%	100% Cito	Client Time
					Pre-cash	Not Required
					in Office	No
					DASArs	315
					State	Open
					testad	10 AUG 2021 14:49
					insued 8	BFXUser
					Targetir	g In Terretord

21. The **Device Results** tab will display the progress for the device. When the status reads **Fixed** the deployment is complete.

GoogleChromeStandaloneEnterprise64.msi				
Overview Device Results				
1 Result				
			Status All • Sort by Status • View 20 • 1/1 4)	Stop Deployment
Device Name	Last Doon	Status		Behavior
BISFIX-CLIENT-W	a rew seconds ago	Fazd		Start immediately
	File Person I see Late			End 16 Aug 2021 14:40
				Time Zone Client Time
				ti oliter No
				Details
				0 T16
				State Open
				Issued By BFXUer
				Targeting
				1 Statically largered
				Source Uninstall: Configuration 1-GoogleChromeStandalcneEnterprised4.msi
BigFix Software Distribution: Edit a Software Package

We may need to edit a software package after creating it. In this exercise we will explore this capability.

WARNING: <u>Do not edit a software package if it has an associated open deployment, or unexpected consequences may</u> <u>occur, including the inability to use the software package in the future</u>. To edit a software package, stop all deployments the package is currently involved in.

- 1. You may be logged into the WebUI already. If not, log into the WebUI using the URL and credentials from the SoFy BigFix Solution Console
- 2. Click on Apps -> Software.



3. Click on the name of the package to edit from the list of packages. We will choose the one we just created in the previous exercise: **GoogleChromeStandaloneEnterprise64.msi**

2 Softwa	are Packages		Q term		
O (Applicat	Deploy (0) Export (0)			Sort by: Modified Date + View: 20 +	I/1 ↔
	GoogleChromeStandaloneEnterprise64.msi	68.104.49283	Google LLC	1.🖵	1,4
	ChromeSetup.exe	1.3.36.102	Google LLC	1	0 🖌

- 4. We have several options available from this page.
- 5. On the left side of the page, under the **Overview** tab:
 - a. What devices report that this software is applicable to them
 - b. What deployments are currently underway for this software package DO NOT EDIT THIS SOFTWARE PACKAGE IF THERE ARE ANY OPEN DEPLOYMENTS. STOP THE DEPLOYMENT(S) FIRST BEFORE EDITING THE PACKAGE
 - c. Results of previous deployments

Unau

d. Number of deployments in the past 24 hours

rview Applicable Devices Deployments		
1 applicable device reported ▲		
1 open deployment		
O deployments with >T0% failed		
1 deployment in the last 24 hours		
escription		
is software is available in multiple configurations to best fit your customized deployment	n.	
vailable configurations		
Configuration 1		~

- 6. On the left side of the page, under the **Applicable Devices** tab:
 - a. Devices that have reported that this application is applicable to them
 - b. Other filters, under Refine My Results, that we can apply

Overview Applicable Devices Deployments		
Refine My Results Collapse All Expand All	1 Device Deploy (0)	Q Sort by: Last Seen + View: 20 - 🔳 1/1
Reset filters > Only those selected > Device Type > Lock Status > Lock Status > Lock Status > Device Broup Most Recent User > If Address > BigFix Agent Status > Last Seen	DIGFIX-CLIENT-W	8 minutes ago

- 7. On the left side of the page, under the **Deployments** tab:
 - a. Deployments of this application package
 - b. Other filters, under Refine My Results, that we can apply

Overview Applicable Devices Deployments		
Refine My Results	1 Deployment	Q. (1997)
Collapse All Expand All	Stop Deployments (0)	Sort by: Issued Date + View: 20 + 📕 1/1 💔
Reset filters	Coordo Chromo Standolono Entermine 64 mai	100%
> Failure Rate %	Google CaromestandaroneEnterprise o4.msi	
> Deployment State		
> Deployment Type		
> Issued By		
> Release Date		
> Deployment Date Range		

Notice that regardless of the tab we explore, the right side of the screen remains the same:

- 8. From the panel on the right of the page, we have several options:
 - a. We can deploy this software package by clicking on the blue **Deploy Software** button
 - b. We can edit the software package by clicking the **Edit Software** link
 - c. Export the software package by clicking on the **Export** Software link
 - d. Edit the Deployment Tasks by clicking on one of the links under the **Deployment Tasks** link

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Edit Software Export Software

Deployment Tasks

Edit Deploy: Configuration 1-GoogleChromeStandaloneEnterprise64.msi Edit Uninstall: Configuration 1-GoogleChromeStandaloneEnterprise64.msi



Edit Softy

HCL SoFy Customer Exercise Guide

Edit Software Deployment Tasks

- 1. Click the **Edit Software** link. Notice that this is the same window we saw when creating the software package, with a few exceptions:
 - a. The header (Edit Software)
 - b. The warning message that Changing the software may affect existing tasks
 - c. The red Delete Software button, which allows us to delete this software package

	Change Icon
Publisher *	Supported Formats: .ico, .png
	Recommended Dimensions: 1
+ Add the configuration	
¥	
	+ Add the configuration

In our exercise, we are going to remove the **Uninstall** option from the package.

NOTE: We could also have clicked on the specific Deployment Task to accomplish this step.

2. Click the down carat to the right of Uninstall and toggle the On/Off selector to Off

Add an Icon to a Software Package

- 3. Before Changing the default icon, we must have an icon file. You can create an icon, obtain an icon from the software vendor, or download an icon file.
 - a. Navigate to https://icons8.com/icons/set/chrome
 - b. Choose any of the Chrome icons available, as long as it is an **.ico** or **.png** file, less than **120x120**. For this example, we selected the color logo on the top row.
 - c. Click Download
 - d. Select the file type (PNG)
 - e. Select the size (96px)
 - f. Click Download
- 4. Click the **Change Icon** link
 - a. Browse to the location of the file you just saved
 - b. Select the file and click **Open**

Change Icon

Supported Formats: .ico, .png Maximum Size: 25KB Recommended Dimensions: 120x120 5. Notice that the icon appears where the default icon used to be



6. We have completed our editing tasks. Click the blue **Save** button to save the application package



BigFix Application Programming Interface: Introduction

Executive Summary

The **Representational S**tate **T**ransfer **A**pplication **P**rogramming Interface (REST API) is the primary programming interface to the BigFix Server. It allows you to perform the majority of the tasks available in the BigFix console by using a set of standardized and operating system independent methods. This API is also key if you want to automate activities, implement your custom BigFix user interface, or integrate with other applications. The REST-API can run the majority of tasks present in the console via a standardized and operating system independent method!

BigFix provides you with:

- The REST API server part, available on the BigFix server, that manipulates the objects stored in the BigFix database.
- A lightweight command-line tool named IEM Command-Line Interface (CLI), that you can use as a REST client to initiate requests towards the REST API server.

You can choose to use your preferred REST Client, in place of the IEM CLI, to issue methods and interact with the BigFix REST server through HTML calls.

Scenario

Using the REST API to issue an action to a computer without using the BigFix Console of the Web User Interface. The process we will follow utilizes the API for all of our functions:

- Get a list of all computers in the environment
- Get a detailed list of computers that have a specific name
- Get information about Fixlets in the BigFix Environment
- Deploy a fixlet to a computer in the BigFix Environment.
- Gather status of the Action after deployment

This sample scenario and instructions will get you started with using the BigFix REST API. In the scenario that you are going to run you'll see how to query resources (like a list of computers).

The scenario requires that you have:

- Access to the BigFix Server's REST API.
- Administration rights for at least one computer.
- Chrome browser with REST-API client <u>add-on</u> (https://chrome.google.com/webstore/detail/advanced-rest-client/hgmloofddffdnphfgcellkdfbfbjeloo?hl=en-US)
 - OR -
- Firefox browser with the client <u>add-on</u> (https://addons.mozilla.org/en-US/firefox/addon/restclient/).

Now – let's give it a try:

Accessing BigFix REST API

1. The BigFix REST API is a web interface that we need to log into. You will find the login link and the credentials on the Solution Content page within SoFy.

רש	Solution Name bigfix-ver Version 0.1.0				
	< Back			Solution Content	
6	HCL BigFix Demo Pack HCL BigFix Preview SoFy Access Control Service	e Solution Console Grafana	Prometheus		
	HCL BigFix Preview				
٠					
6	Quick Links				\$ V
•	HCL BigFix WebUI https://bigfix-webui.sbx0012.play.products.pnpsofy.com/login [*** Default Login				Open Link
٥	User ID : BFXUser Password : BFXR0cks!				
1 0	HCL BigFix WebReports https://bigfix-webreports.sbx0012.play.products.pnpsofy.com/login [Default Login User ID : BFXUser				Open Link
•	Pessword : BFXR0cks!				
⊕°	HCL BigFix REST API https://bigfix-server.sbx0012.play.products.pnpsofy.com/api/help				Open Link
	User ID: BFXUser Password : BFXR0ekst				

Access the REST API from a web browser

- 2. Click the "Open Link" button to the right of **HCL BigFix REST API** and log in using the credentials provided in the Solution Content.
- 3. Your browser link takes you to <server-fqdn>/api/help
- 4. We are going to start with a simple command, to get a list of the computers in our environment. Replace **help** with **computers** in the address bar, like this:

https:// <serv< th=""><th>er-fqdn>/api/computers</th><th>\leftarrow \rightarrow C \textcircled{a}</th><th>O A https://bigf</th><th>fix-server.sbx0096.play.products.pnpsofy.com/api/computers</th></serv<>	er-fqdn>/api/ computers	\leftarrow \rightarrow C \textcircled{a}	O A https://bigf	fix-server.sbx0096.play.products. pnpsofy.com /api/computers
This comman computer IDs the last time	d returns a list of the in the environment, and they reported.	- <besapi ssi:nonamespaces<br="">-<computer htt<br="" resource="htt
<LastReportTime>Wed,
<ID>1081004516</ID>
</Computer Resource="><lastreporttime>Wed, <id>1616863717</id> </lastreporttime></computer><lastreporttime>Wed, <id>549462224</id> <lastreporttime>Wed, <id>1620359228</id> <lastreporttime>Wed, <id>1082365445</id> <lastreporttime>Wed, <id>1075877891</id> </lastreporttime></lastreporttime></lastreporttime></lastreporttime></besapi>	ichemaLocation="BESAPL3 ps://bigfix-server.sbx0096.pla .25 Aug 2021 22:59:21 +000 ps://bigfix-server.sbx0096.pla .25 Aug 2021 22:59:39 +000 ps://bigfix-server.sbx0096.pla .25 Aug 2021 22:59:35 +000 ps://bigfix-server.sbx0096.pla .25 Aug 2021 23:01:34 +000 ps://bigfix-server.sbx0096.pla .25 Aug 2021 22:59:24 +000 ps://bigfix-server.sbx0096.pla .25 Aug 2021 22:59:24 +000	xsd"> ay:products.pnpsofy.com/api/computer/1081004516"> 10 ay:products.pnpsofy.com/api/computer/1616863717"> 10 ay:products.pnpsofy.com/api/computer/549462224"> 10 ay:products.pnpsofy.com/api/computer/1620359228"> 10 ay:products.pnpsofy.com/api/computer/1620359228"> 10 ay:products.pnpsofy.com/api/computer/1082365445"> 10 ay:products.pnpsofy.com/api/computer/1082365445"> 10
Page 114	Copyright 2021 HCL Tech	nologies Limited, All Right	s Reserved	Unauthorized duplication prohibited



5. Let's use some Relevance to find computers with a specific string in the name. We are going to look for computers that have "bigfix" in the name. Copy and paste into the address bar, replacing **computers** with this:

query?relevance=(names%20of%20it,%20ids%20of%20it)%20of%20bes%20computers%20who se%20((name%20of%20it%20as%20lowercase%20contains%20%22bigfix%22%20)%20and%20(% 20agent%20type%20of%20it%20as%20lowercase%20contains%20%22native%22%20))

The information returned from this API query returns the names of the endpoints, as well as the computer ID.

F → C A Https://bigfix-server.sbx0096.play.products.pnpsofy.com/api/query?relevance=(names of it, ids of it) of bes computers whose ((name of it a lowercase contains "bigfix") and (agent type of it as lowercase contains "native"))
- <besapi xsi:nonamespaceschemalocation="BESAPI xsd"> Query Resource="(names of it, ids of it) of bes computers whose ((name of it as lowercase contains "bigfix") and (agent type of it as lowercase contains "native"))"> Result></besapi>
<tp><tp><answer type="string">bigfix-client-th8</answer><answer type="integer">549462224</answer><tuple></tuple></tp></tp>
<answer type="string">bigfix-client-ub20</answer> <answer type="integer">1075877891</answer> Tuple>
<answer type="string">bigfix-server</answer> <answer type="integer">1081004516</answer> Tuple>
<answer type="string">bigfix-webui</answer> <answer type="integer">1082365445</answer> Timle>
<pre>Answer type="string">bigfix-rclay-th8 <answer type="integer">1616863717</answer> </pre>
<answer type="string">BIGFIX-CLIENT-W</answer> <answer type="integer">1620359228</answer>
-Evaluation> <time>1.924ms<time> <plurality>Plural</plurality> </time></time>

- 6. Write down one of these computer IDs, that corresponds to one of our *client* endpoints. You can use any computer for this exercise except the BigFix Server itself.
- 7. Now we will use some Relevance to find some information about a fixlet and retrieve the ID, Site, and Title. In our example, we are going to search for some configuration settings Fixlets, but you could also search for a patch (Windows KB or Red Hat Security Advisory) or other fixlet. Copy and paste into the address bar, replacing everything following "api/" with this:

query?relevance=(ids%20of%20it%20as%20string,%20name%20of%20site%20of%20it,%20n ames%20of%20it)%20of%20bes%20fixlets%20whose%20(name%20of%20it%20as%20lowercase %20contains%20%22bes client%22)



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Using the RESTAPI Command Line Interface (CLI)

Every BigFix Server has a program called **IEM.exe**. This utility is found in the IEM CLI directory of the BES Server directory (by default this is C:\Program Files (x86)\BigFix Enterprise\BES Server\IEM CLI\). This utility allows us to interact with the BigFix Server and run commands using the REST API.

1. In the browser window, scroll down the list of Fixlets we returned in #7 above until you see Fixlet with the ID of **432** and the name of **Force BES Clients to Run Manual Relay Selection** (The screen capture above is scrolled to see this fixlet). We will use this Fixlet and create an action to target one of our endpoints using the API.

NOTE: This is not something we can do in the browser as this requires us to POST to the API on the BigFix server. We will use the utility mentioned above, called the **RESTAPI Command-line interface (CLI)** to perform this task. By default, this utility resides on the BigFix Server, but we will download it from the BigFix Utilities for this exercise.

2. Navigate to https://support.bigfix.com/bes/release



BigFix Enterprise Suite Download Center Platform Release Information

Important Note: You can only upgrade to BigFix 10 starting from BigFix version 9.5.10 or later.

Important Note: You cannot upgrade to BigFix Version 10.0.0 or 10.0.1 from BigFix Version 9.5.17 or later. Starting from B 9.5.17 you can upgrade to BigFix Version 10.0.2 or later.

3. Select the most recent BigFix 10 version release (it will be the topmost "Patch #" link under the "10" header

10				
Release	Server	Console	Relay	Agent
Patch 4	10.0.4.32	10.0.4.32	10.0.4.32	10.0.4.32
Patch 3	10.0.3.66	10.0.3.66	10.0.3.66	10.0.3.66
Patch 2	10.0.2.52	10.0.2.52	10.0.2.52	10.0.2.52
Patch 1	10.0.1.41	10.0.1.41	10.0.1.41	10.0.1.41
Patch 0	10.0.0.133	10.0.0.133	10.0.0.133	10.0.0.133

4. Scroll down to the Utilities section

Utilities

- Click the download link next to RESTAPI Command-line interface (CLI), which is a link to CLI10.#.#.##.zip
- 6. Save the file to your computer

Name	Operating System	Download
QnA/Fixlet Debugger	Windows	Download
RESTAPI Command-line interface (CLI)	Windows	Download
Airgap Tool	Windows	Download
BESRemove	Windows	Download
PES Client Compliance SDK	Mindowo	Download

7. Extract the zip file to a folder on your computer. For our example, we will use C:\temp

Extract Compressed (Zipped) Folders

Select a Destination and Extract Files

Files will be extracted to this folder:

Show extracted files when complete

C:\temp

Unauthorized duplication prohibited

Extract Cancel

Browse...



Creating an XML file to run the BigFix Action

- 1. Actions run using the RESTAPI Command Line Interface, or CLI tool require an XML file. We will create an XML file that the API will use to create the action on the BigFix Server.
- 2. Copy and paste the following into a text editor, replacing the text highlighted in yellow with the computer ID we wrote down previously.

```
<BES xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="BES.xsd">
<SourceFixletAction>
<SourceFixlet>
<Sitename>BES Support</Sitename>
<FixletID>432</FixletID>
<Action>Action1</Action>
</SourceFixlet>
<Target>
<ComputerID>1234567890</ComputerID>
</Target>
</SourceFixletAction>
</BES>
```

3. Save the file as 'action.xml' to the same folder that you extracted/copied IEM.exe

NOTE: If you did not write down the computer ID, go back and re-do steps 5-6. We will use a computer ID that corresponds to one of our *client* endpoints. You can use any computer for this exercise except the BigFix Server itself.

Using the RESTAPI Command Line Interface

1. Open a CMD window and change directory to the directory of the IEM tool (the zip file you downloaded and extracted previously). The first thing we need to do is to login with the following command:

iem.exe login

- Enter the server name. This is the fully-qualified server name in the URL we used previously, and ":443". For example, bigfix-server.sbx0012.play.products.pnpsofy.com:443 (your server name will be different). You can also get the server name from the SoFy BigFix Solution Console.
- Enter the user name. This information is in the SoFy BigFix Solution Console
- Enter the password. This information is in the SoFy BigFix Solution Console

```
c:\temp\CLI10.0.4.32>iem.exe login
Server : bigfix-server.sbx0096.play.products.pnpsofy.com:443
User : BFXUser
Password:
Successfully logged in to server!
```

If you entered the information correctly, you will see Successfully logged in to server!

2. Once we have logged in we can submit an action. Actions require an xml file, so we will use the one we created just now – action.xml. We can then use the IEM command to POST the action to the BigFix server via the Restful API:

iem.exe POST <path to xml> actions

c:\temp\CLI10.0.4.32>iem.exe POST action.xml actions
Krxmi version= 1.0 encouring= OTF-8 72
<besapi xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:nonamespaceschemalocation="BESAPI.xsd"></besapi>
<pre><action lastmodified="Wed, 25</pre></td></tr><tr><td>Aug 2021 22:54:38 +0000" resource="https://bigfix-server.sbx0096.play.products.pnpsofy.com/api/action/122"></action></pre>
<name>Force BES Clients to Run Manual Relay Selection</name>
<id>122</id>

We are provided an XML response with the ID of the action. Take note of the action ID (in the screen capture above, on the "<Action Resource=..." line. The action ID is 122, but yours will be different

We can now check on the status of the action as follows:

3. Get a list of actions. Now we will return to the browser and get a list of actions. Enter **actions** after **api/** in the address bar, like this:

https://<server-fqdn>/api/actions

-<Action Resource="https://bigfix-server.sbx0096.play.products.pnpsofy.com/api/action/122" LastModified="Wed, 25 Aug 2021 22:54:38 +0000"> <Name>Force BES Clients to Run Manual Relay Selection</Name> <ID>122</ID>

</Action>

NOTE: if you did not capture the action ID that was displayed at the command prompt using IEM.exe, you can search for it in the list of actions returned. It will most likely be the last one in the list, at the bottom.



4. Now we can pull back the details of the specific action that we just submitted. Type the following, replacing the yellow highlighted text with your action ID:



$\leftarrow \ \ni \ \bigcirc \ \bigcirc$	O A https://bigfiv-server.sbx0096.play.products.pnpsofy.com/api/action/122
- <bes td="" xsi:nonamespaceschema<=""><td>Location="BES xxd"></td></bes>	Location="BES xxd">
- <singleaction></singleaction>	
<title>Force BES Clients to</title>	o Run Manual Relay Selection
((version of client >= "7.2	(") AND ((if exists property "in proxy agent context" then (not in proxy agent context) else true))) AND ((not exists values of settings " RelavSelect Automatic" of client) OR (value of setting " RelavSelect Automatic" of client)
<actionscript mimetype<="" td=""><td>="application/x-Fixlet-Windows-Shell">relay select=/ActionScript></td></actionscript>	="application/x-Fixlet-Windows-Shell">relay select=/ActionScript>
<successcriteria ontion="</td"><td>Run ToCompletion"></td></successcriteria>	Run ToCompletion">
-Settings>	
<preactionshowui>fals</preactionshowui>	e <preactionshowu></preactionshowu>
<hasrunningmessage></hasrunningmessage>	false
<hastimerange>false<</hastimerange>	/HasTimeBanes>
<hasstarttime>false<!--</td--><td>JasStartTime></td></hasstarttime>	JasStartTime>
<hasendtime>true<td>isEndTime></td></hasendtime>	isEndTime>
<enddatetimelocaloff< td=""><td>(set>P2D</td></enddatetimelocaloff<>	(set>P2D
<hasdayofweekconstr< td=""><td>caint>false</td></hasdayofweekconstr<>	caint>false
<useutctime>false<td>seUTCTime></td></useutctime>	seUTCTime>
<activeuserrequirement< td=""><td>at>NoRequirement</td></activeuserrequirement<>	at>NoRequirement
<activeusertype>AllUs</activeusertype>	ers
<haswhose>false<td>Whose></td></haswhose>	Whose>
<preactioncachedown< td=""><td>/oad>false</td></preactioncachedown<>	/oad>false
<reapply>false<td></td></reapply>	
<hasreapplylimit>true</hasreapplylimit>	HasReapplyLimit>
<reapplylimit>3<td>oplyLimit></td></reapplylimit>	oplyLimit>
<hasreapplyinterval>f</hasreapplyinterval>	alse S/HaxReapplyInterval>
<hasretry>false<td>ein/2</td></hasretry>	ein/2
<hastemporaldistribut< td=""><td>ion>false</td></hastemporaldistribut<>	ion>false
«ContinueOnErrors>tru	e <continueonerrors></continueonerrors>
<postactionbehavior be<="" td=""><td>ehavior="Nothing"/></td></postactionbehavior>	ehavior="Nothing"/>
<isoffer>false<td></td></isoffer>	
-SettingsLocks>	
<actionuititle>false<td>actionUTTitle></td></actionuititle>	actionUTTitle>
<preactionshowui>fals</preactionshowui>	e <preactionshowui></preactionshowui>
-< PreAction>	
<text>false</text>	
<asktosavework>fai</asktosavework>	ise
Chan Antian Button	Glass Show Action Parton >

5. Finally, to see the actual status of the action we can enter the following, replacing the yellow highlighted text with your action ID:

https://<server-fqdn>/api/action/122/status

 $\leftarrow \rightarrow C \hat{\Box}$ C A https://bigfix-server.sbx0096.play.products.pnpsofy.com/api/action/122/status -<BESAPI xsi:noNamespaceSchemaLocation="BESAPI.xsd"> -<ActionResults Resource="https://bigfix-server.sbx0096.play.products.pnpsofy.com/api/action/122/status"> <ActionID>122</ActionID> <Status>Open</Status> <DateIssued>Wed, 25 Aug 2021 22:54:38 +0000</DateIssued> -<Computer ID="1620359228" Name="BIGFIX-CLIENT-W"> <Status>The action executed successfully.</Status> <State IsError="0">3</State> <ApplyCount>1</ApplyCount> <RetryCount>1</RetryCount> <LineNumber>2</LineNumber> <StartTime>Wed, 25 Aug 2021 22:55:33 +0000</StartTime> <EndTime>Wed, 25 Aug 2021 22:55:33 +0000</EndTime> </Computer> </ActionResults> </BESAPI>

This scenario is an introduction to using the BigFix REST API. You can learn more by visiting https://developer.bigfix.com/rest-api/

Document Version Information

Date	Version	Author	Notes
6/16/2021	1.0	Ben Dixon	Initial document
8/5/2021	1.1	Ben Dixon	Updates for BigFix 10.0.4
8/10/2021	1.5	Ben Dixon	Consolidated workbooks for various exercises
8/16/2021	1.6	Ben Dixon	Finalized SWD exercises, removed API exercise b/c of typos API will be included in
			next version
8/25/2021	1.7	Ben Dixon,	Added AIP exercises
		Michael	
		Thompson	