BigFix Foundation

Student Workbook - Windows

September 2023



For more information

To learn more about BigFix, contact your HCLSoftware representative, HCL Business Partner, or visit <u>www.BigFix.com</u>.

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January 2020	2.3	Mark Leaphart	Initial version
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July 2020	3. 2	Mark Leaphart	More cleaning of IBM references.
July 2020	3. 3	Mark Leaphart	Added to the Windows and Linux labs. These are designed to fail. Notes given and links as to how to fix.
July 2020	3. 4	Mark Leaphart	Changed the numbering schema to be all sequential.
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BigFix Foundation - Installing BigFix

Student exercises

Overview

In this lab you will learn how to:

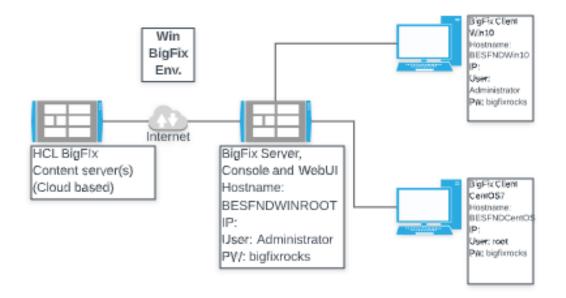
- Download BigFix
- Install BigFix Server Windows
- Install BigFix Server Linux
- Install BigFix Console
- Install BigFix Client(s)
- Install BigFix WebUI

The exercises in this lab guide focus on installing and configuring the BigFix Server, BigFix Console, BigFix Client and BigFix Relay on separate virtual machines.

The exercises in this lab guide are based on VMware Workstation v12, but other versions of VMware Workstation could be used. VMware Fusion could also be used.

NOTE: This is not a deployment guide and it is not designed to show a secure implementation.

Lab Environment



The below table contains a summary of the VM images used in this lab guide:

Host Name	BigFix Components	OS	IP Address	Userid & Password
BESFNDWINROOT	BigFix Windows based Server, Console, WebUI, and Client	Windows 2016	10 0 0 1	Administrator bigfixrocks
BESFNDWIN10	BigFix Client, Console	Windows 10	10000	tecuser bigfixrocks
BESFNDCENTOS	BigFix Client	CentOS7	10.0.0.5	root bigfixrocks
AII	BigFix Console creds			adminmo B1gfixrocks

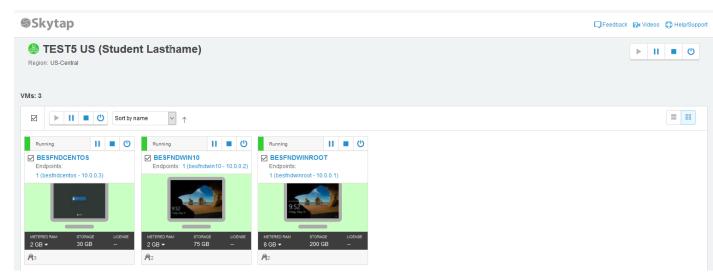
Accessing Lab Environment

The BigFix Lab environment is currently being hosted in Skytap's (<u>www.skytap.com</u>). To access this environment, you will need the url, id, and password sent to your registered email address (this would be from Skytap.com). If you are a USA Federal customer – your instructor will provide you your credentials and access url(s).

Students will receive an email (this is the email address you provided when you registered for the course) from Skytap that contains the url to YOUR Skytap environment, the login id and password for this specific course. It will look something like this:

[CAUTION: This Email is from outside the Organization. Unless you trust the sender, Don't click links or open attachments as it may be a Phishing email, which can steal your Information and compromise your Computer.]
Hello james.leaphart@hcl.com,
Event: MARK 0
Course: TEST5 US
Start time:
End time: 05/15/2020 12:34 PM PDT
Student Region: US-Central
Student Passcode: P9G6ZB7APZYQ
Student URL: https://hcl-vt.skytap-portal.com/lab_access/event_participant/13/995d8455a0ac743edb1a1c6ebca90d9cc8e6805383edc11cf581887b12ceff5a_
Instructors:
Instructor Email/ID Instructor Name Region leaphartmark@gmail.com Mark Leaphart US-Central

Click on the url provided in your email and provide your credentials (if asked). You will be taken into Skytap and you will see your provisioned environment.



The vm's provided here are accessible via your browser (rdp is not required). Click on a vm and your browser will present your vm:



Now let's look at the controls in the browser for this vm.



- 1) Environment VM's: View all vm's in your environment or switch to another vm in your environment
- 2) Suspend this vm
- 3) Shutdown this vm
- 4) Power options for vm a) shutdown, b) reset, c) power off
- 5) Ctrl-Alt-Del is passed to the vm
- 6) Keyboard layout and or inject key combinations
- 7) Credentials: operating system and applications in this vm
- 8) VM Clipboard
- 9) Fit to window
- 10) Change video resolution
- 11) Network Quality Indicator
- 12) Hide this tool bar
- 13) Help

When you open any of the Windows vm's, always answer YES to the network connection question.

Exercise 1: Starting the Environment

In this exercise, you will install BigFix and start the configuration process.

____1) Verify that the following virtual machines are started:

- BigFix Server: **BESFNDWINROOT**
- BigFix Windows Client: **BESFNDWIN10**
- BigFix Linux Client: BESFNDCENTOS

___2) Switch to the **BESFNDWINROOT** virtual machine. If you are logged off, log in as **Administrator** with a password of **bigfixrocks**.

NOTE: This lab guide has been created for installing/configuring BigFix on only the image set using a Windows Root Server.

You have now successfully completed Exercise 1.

Exercise 2: Install BigFix on a Windows Server 2016

In this exercise, you will install and configure the HCL BigFix Server, BigFix Console, BigFix client, BigFix WebReports, and the BigFix WebUI. Will take approx. 10-15 min.

Note: MSSQL 2016 and MSSQL Tool kit has been installed and configured.

1) Login to the BigFix Server: **BESDNDWINROOT** as **Administrator** with a password of **bigfixrocks**.

____2) Open File Explorer and navigate to the BigFixSrc folder on the Windows Desktop.

_____3) Right click on: **BigFix-BES-InstallGenerator_11.0.0.175.exe**, then select **Run as Administrator** from the context menu.

The installer is extracted and you are prompted to select the language.

Verify that English is selected and click OK.

The Installation Generator creates the installers for the BigFix Server, BigFix Console, BigFix Agent, BigFix WebUI.

____4) Click **NEXT.**

_____5) Select Install Type: PRODUCTION

6) Select the I accept the terms of the license agreement radio button. Click NEXT

__7) Select the I want to install with an existing masthead radio button on the Setup Type pane and click NEXT.

Note: This class will re-use existing BigFix serial number and license so when prompted you will select an existing masthead and license.pvk files. You would do the same in your environment if you had to re-install BigFix. In your environment, you would have downloaded a license authorization file from BigFix to perform a new installation.

___8) Provide the path to the existing masthead. Navigate to the following folder on the Windows Desktop;

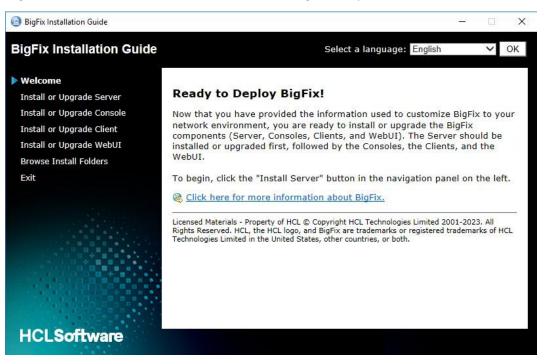
\WindowsRootServerCredentials\Windows

9) Select the **masthead.afxm** file and click **Open**. The Choose Destination Location pane opens.

____10) Accept the default path and click NEXT.

__11) The BigFix source files are copied to the installer location and the InstallShield Wizard Complete pane is displayed. Click **FINISH.** The InstallShield Wizard closes and the BigFix Installation Guide opens.

Use the BigFix Installation Guide to install of the various BigFix components.



12) Select: Install or Upgrade Server

Velcome	
install or Upgrade Server	Install or Upgrade BigFix Server
install or Upgrade Console Install or Upgrade Client	The BigFix Server communicates with the BigFix Clients, Consoles, and WebUI. The Server stores all the information about the Clients and sends Fixlet messages and actions to the Clients.
nstall or Upgrade WebUI Browse Install Folders	Click here to view the BigFix Server system requirements
Exit	If you wish to install or upgrade the BigFix Server on this computer, click the link below. Otherwise, click the "Browse Install Folders" button in the navigation panel on the left, copy the "Server" folder to the intended computer, and run the "setup.exe" application on it. After you install or upgrade the BigFix Server, you will need to install or upgrade the Console and Clients.
-ICLSoftware	Install or Upgrade the Server on this computer

The BigFix server installation wizard starts. Verify that **English** is selected then click **OK**. The Welcome pane opens.

Click **NEXT** to begin the BigFix server installation.

BigFix Server - InstallShield W	/izard	X
HCL Software	Welcome to the InstallShield Wizard for BigFix Server	
	The InstallShield® Wizard will install BigFix Server on your computer. To continue, click Next.	
	< Back Next > Cance	;I

The Select Features pane opens.

____13) Ensure that both **BigFix Server** and **Web Reports** are checked. Click **Next**.

Select Features	HCLSoftware
Select the features setup will install.	HOLSOItware
Select the features you want to install, and desel	ect the features you do not want to install.
	Description
Web Reports	All components for the BigFix Server
161.54 MB of space required on the C drive 40510.21 MB of space available on the C drive tallShield	

The License credentials pane opens.

_14) Click **Browse** and select the **License.pvk** file from the

\WindowsRootServerCredentials\Windows folder on the Windows desktop. Enter **B1gfixrocks** in the **Site Admin Private Key password** field then click **Next**.

BigFix Server - InstallShield Wizard	×
License credentials	
Specify your license credentials	HCLSoftware
Site Admin Private Key (license.pvk):	
C:\Users\Administrator\Desktop\WindowsRootServerCredentials\Window	vs\lic Browse
Site Admin Private Key password:	

Masthead file (masthead.afxm):	11
C:\Program Files (x86)\BigFix Enterprise\BES Installers\Server\masthead.	afxm Browse
InstallShield	
< Back Next :	Cancel

The Select Database Replication pane is displayed.

_15) Select the **Single or Master Database** option and click **Next**.

BigFix Server - InstallShield Wizard		×
Select Database Replication	178.00	
Select the database replication to be used by Bi	igFix.	HCLSoftware
Single or Master Database		
There is only one database in the deploym	ient, or this is the mas	er database.
O Replicated Database		· · · ·
The database will replicate from an existing	g database in the dep	oyment. A master
database must already exist.		
database must already exist.		
database must already exist. IstallShield		

The BigFix Master Operator Credentials pane is displayed.

____16) Enter the Master Operator information as follows:

____a) Username: adminmo

____b) Password: B1gfixrocks

____c) Confirm password: B1gfixrocks

Jsername: adminmo Password:	/e
Password:	

Confirm Password:	
••••••••	

- ___17) Click **Next**. The Select Database pane is displayed.
- _18) Select the Use Local Database option and click Next.

Select Database	
Select the database to be used by BigFix.	HCLSoftware
Use Local Database Install the BigFix databases on the local computer.	
O Use Remote Database	
O Use Remote Database Install the BigFix databases on a network computer that installed.	already has SQL Server
Install the BigFix databases on a network computer that	already has SQL Server

The Choose Destination Location pane is displayed.

_19) Accept the default location and click **NEXT.** The Server Properties pane is displayed.

_20) Accept the defaults on the Server Properties pane and click NEXT.

ligFix Server - I	nstallShield Wizard		>
Server Prop	erties		HCLSoftware
The WWWF	Root folder below will be	e used as the web server's ro	oot folder.
To install to	a different folder, please	e modify the path below.	
WWW Path	C:\Program Files (x8	6)\BigFix Enterprise\BES Se	erver\www.rootbes
URL:	http://besfndwinroot	:52311	
			Set Proxy
			JECHIONY
istallShield ——			
		< Back	Next > Cancel

The Web Reports Properties pane is displayed.



Note: Pay attention to the URL: the name presented here MUST be resolvable by your endpoints either via DNS or hosts file. If you use a Proxy to access the Internet at your work location, you can click the "Set Proxy" button to provide the proxy configuration information. A Proxy configuration is not required for this lab.

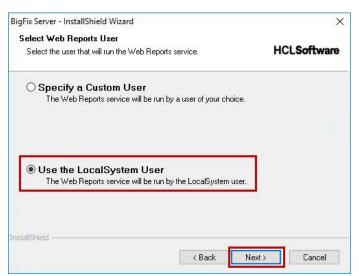
__21) Accept the defaults for the Web Reports Properties and click **NEXT.** The Select Web Reports User pane is displayed.



Note: Pay attention to the **port** used by Web Reports. The default SSL port is 8083, and you can change it here if you want to use a different port. You can change it after installation by using the available Task in the BES Support site.

₩eb Reports Properties	
web nepoits riopenies	HCLSoftware
Web Reports will be automatically configured to Below you can set the path of the root folder (w HTTPS port.	
WWW Path: Program Files (x86)\BigFix Enterp	rise\BES Server\BESReportsServer\www.root
Port: 8083	
Port: 0000	
talishield	

_22) Select the Use the LocalSystem User option and click NEXT.



The SQL Server configuration pane is displayed.

_23) Review the information on the SQL Server configuration pane and click Yes.

SQL Server configuration	×
The SQL Server database instance configuration che following issues.	cks found the
Some SQL Server settings do not fit the recommend limit the performances of your BigFix applications: - maximum degree of parallelism (MAXDOP): 0 - cost threshold for parallelism (CTFP): 5	ations and may
The following values would be more appropriate: - maximum degree of parallelism (MAXDOP): 4 - cost threshold for parallelism (CTFP): 50	
To run this check again and change your configurati use the BESAdmin commands /checksqlserverparall /setsqlserverparallelism.	
Do you want this installer to change the configuration	on fo <mark>r</mark> you?
Yes	No

The Information pane is displayed.

_24) Review the installation information, then click **Next**.

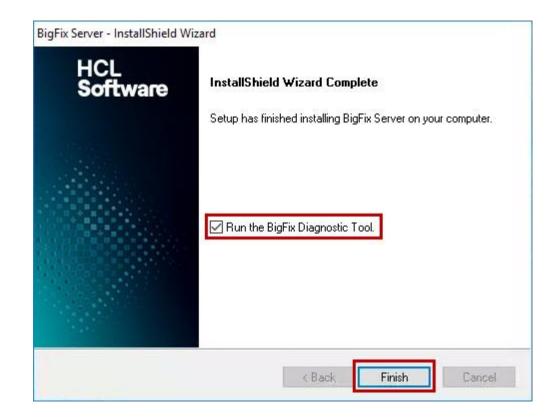
Information	
Please read the following text.	HCLSoftware
Please review the installation parameters below.	
The BigFix Server installer will perform the following opera - Install the Server's program files - Install the Server service and other web server files	
 Read in configuration settings from the Action Masthead Prompt you to change the SQL Server default 'sa' passw Prompt you to create user logins for the BigFix Console (Prompt you to run the BigFix Diagnostics Tool to verify the BigFix Diagnostics and the Prompt you to run the BigFix Diagnostics and the Prompt you to run the BigFix Diagnostics and the Prompt you to run the BigFix Diagnostics and the Prompt you to run the BigFix Diagnostics and the Prompt you to run the BigFix Diagnostics and the Prompt you to run the BigFix Diagnostics and the Prompt you to run the BigFix Diagnostics and the Prompt you to run the BigFix Diagnostics and the Prompt you to run the BigFix Diagnostics and the Prompt you to run the BigFix Diagnostics and the Prompt you to run the BigFix Diagnostics and the Prompt you to run the BigFix Diagnostics and the BigFix Diagnostics and the Prompt you to run the BigFix Diagnostics and the BigFix Diagnostics an	ord (if applicable) (if running advanced installatic
 Prompt you to change the SQL Server default 'sa' passw Prompt you to create user logins for the BigFix Console (ord (if applicable) (if running advanced installatic

The installation of the BigFix server begins. This will take several minutes to complete.

During the BigFix Server installation the primary BigFix database (BFEnterprise) and the Web Reports database (BESReports) are created.

0	Please wait while your database is prepared to support BigFix. This process may take several minutes to complete
Status:	

Wait for the installation to complete. Verify that there is a check beside **Run the HCL BigFix Diagnostic Tool.** Click **Finish**.



The BigFix Server Diagnostics pane opens. Click Full Interface.

Testing server	
[WARNING]	
Test Failed: Checking that this machine is running the BES Client	
Reason: The service does not exist	
Testing servicesOk	
Testing Web ReportsOk	
Result	
 One or more warnings were encountered during testing. The BigFix system may or ma	avnot
function properly. Please view the Full Interface for more details.	ay not
unction property. These view the Full interface for more details.	
Full Interface Close	

The BigFix Diagnostics Tool opens with the full interface.

_25) Select the **Services** tab and verify that the four BigFix services have a green check mark beside them.

BigFix Diagnostics Tool	
Server Services Web Reports About	
SillDB Service Installed	0
FillDB Service Running	
GatherDB Service Installed	0
GatherDB Service Running	0
View Server Diagnostics	
12	1000
Result	^
4 out of 4 tests passed	
	v
Refresh	Close

- _____26) Click **Close**. The BigFix Diagnostics Tool closes.
- _____27) Return to the **BigFix Installation Guide**.

_28) Select Install or Upgrade Console and then click the Install or Upgrade the Console on this computer link.



The BigFix Console – InstallShield Wizard pane opens.

_29) Select English as the language and click OK.

BigFix (Console - InstallShield Wizard	×
	Select the language for the installation from the o	choices below.
	English (United States)	~
	OK	Cancel

The Welcome screen is displayed.

_____30) Click **NEXT**. The Destination Folder pane is displayed.

_____31) Accept the default destination folder and click **NEXT**.

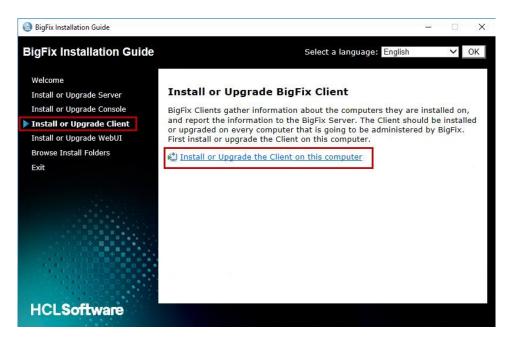
_____32) Verify that the **Create a BigFix Console shortcut on the Desktop** option is selected and click **INSTALL**. After a few minutes the InstallShield Wizard Completed pane is displayed.

_____33) Uncheck Launch the program option and click FINISH. You are returned to the BigFix Installation Guide.

__34) Select Install or Upgrade Client and click the Install or Upgrade the Client on this computer link.



Note: You must install a BigFix agent to your BigFix server. BigFix uses this agent to install and configure your BigFix server.



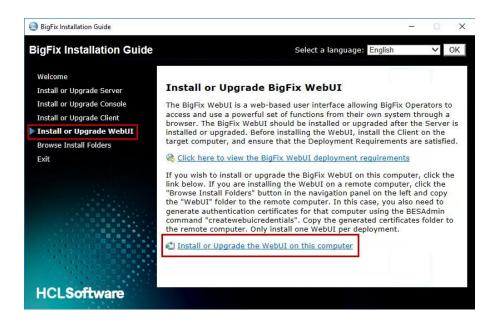
The BigFix Client – InstallShield Wizard opens.

- _____35) Verify that **English** is selected and click **OK.** The Welcome pane is displayed.
- _____36) Click **NEXT**. The Destination Folder pane is displayed.
- _____37) Accept the default location and click **NEXT**. The Ready to Install the Program pane is displayed.
- 38) Click **INSTALL** to begin the installation of the BigFix client.

😸 BigFix Client - InstallShield Wizard		×
Ready to Install the Program		HCLSoftware
The wizard is ready to begin installat	ion.	
Click Install to begin the installation.		
If you want to review or change any exit the wizard.	of your installation setting	is, dick Back. Click Cancel to
InstallShield		
ar na saamar mealla	< Back	Install Cancel

_39) Once this installer completes, click **FINISH**. The BigFix Client wizard closes, and you are returned to the BigFix Installation Guide.

_40) Select Install or Upgrade WebUI then click the Install or Upgrade the WebUI on this Computer link.



The WebUI Service – InstallShield Wizard pane opens.

_41) Verify that **English** is selected and click **OK.** The Welcome pane is displayed.

____42) Click **NEXT.** The License Credentials pane is displayed.

43) Click **Browse** beside the **Site Admin Private Key** field and select the **license.pvk** file from the **\WindowsRootServerCredentials\Windows** folder on the Windows desktop, then click **Open**.

icense credentials		HCLSoftware
Specify you <mark>r</mark> license credentials		
Site Admin Private Key (license.pvk):		
C:\Users\Administrator\Desktop\Wind	dowsRootServerCreVicense.pvk	Browse
Site Admin Private Key password:		
4		
Masthead file (masthead.afxm):		
Masthead file (masthead.afxm):		Browse
		Browse
		Browse
<none selected=""></none>		Browse
		Browse

_44) Enter **B1gfixrocks** in the **Site Admin Private Key password field**.

_45) Click **Browse** beside the **Masthead file** field and select the **masthead.afxm** file from the \WindowsRootServerCredentials\Windows folder on the Windows desktop, then click **Open**. Click **NEXT** to continue.

icense credentials		HCLSoftwar
Specify your license credentials		
Site Admin Private Key (license.pvk)):	
C: \Users \Administrator \Desktop \Wi	indowsRootServerCreVicense.pvk	Browse
Site Admin Private Key password:		
	1	
Masthead file (masthead.afxm):		
Masthead file (masthead.afxm): C:\Users\Administrator\Desktop\Wi	indowsRootServe\masthead.afxm	Browse
	ndowsRootServe\masthead.afxm	Browse
	indowsRootServe\masthead.afxm	Browse
	indowsRootServe\masthead.afxm	Browse
	indowsRootServe\masthead.afxm	Browse

The Destination Folder pane opens.

- _____46) Accept the default location and click **NEXT**. The WebUI ports page opens.
- ____47) Accept the default ports (443, 80). Click NEXT.

BigFix WebUl Service - InstallShield Wizard	
WebUI ports	HCLSoftwa
Specify WebUI ports	
Specify the ports that WebUI will use. Make sure th	that the ports you choose are not used by any
other program.	
HTTPS Port:	
443	
HTTP Redirect Port:	
80	
nstallShield	

The Database Server pane is displayed.

_48) Enter the Database Server connection credentials as follows:

____a) Database Engine field: (local)

____b) Select the SQL Server Authentication Credentials option

____c) Login ID: sa

____d) Password: bigfixrocks

🛃 BigFix WebUl Se	rvice - InstallShield Wi	zard		×
Database Serve	r			HCLSoftware
Select database	server and authenticatio	n method		
	e engine, for example: "(ame", "IP",	
	nce_name", "IP,port", etc	5.		
(local)				
The login used MU	ST BE THE 'SA' ACCOUNT	For have identic	al privileges.	
Connect using:				
	thentication credentials b		(compane)	
O WINDOWS ad	diendeadoin diedendais b	COM (DOMATAK	username)	
SQL Server a	authentication credentials	s below (for exa	mple, sa)	
Login ID:	sa			
Password:				
InstallShield				
		< Back	Next >	Cancel
	1			

____49) Click **Next**. The Ready to Install pane is displayed.

____50) Click Install. The installation begins and after a few minutes the InstallShield Wizard Completed pane is displayed.

____51) Click **Finish**. The WebUI installer closes and you are returned to the BigFix Installation Guide.

_____52) Click **Exit**. A confirmation message is displayed.

_____53) Click **OK**. The BigFix Installation Guide closes.

This completes the installation of BigFix Root server, BigFix Console, BigFix agent, and BigFix WebUI. You can restart the BigFix Installation Guide anytime. By default, t it is located in the following folder:

C:\Program Files (x86)\BigFix Enterprise\BESInstallers\BESInstallationGuide

You have now successfully completed Exercise 2.

BigFix Foundation – BigFix Post-Installation Tasks

Overview

The lab exercises in this section describe the post installation tasks that are done to access the external site content and configure your BigFix deployment for managing your endpoints. In these exercises you perform the following activities:

- Post-Install Steps Windows Root Server
- Enabling products/sites in BigFix

NOTE: These labs are not a production deployment guide. It is not designed to show a secure BigFix implementation.

Exercise 3: Starting the Environment

In this exercise, you start the required virtual machines and open the BigFix console.

_____1) Verify that the following virtual machines are started:

- BigFix Server: **BESFNDWINROOT**
- BigFix Windows Client: BESFNDWIN10
- BigFix Linux Client: BESFNDCENTOS
- _____2) Switch to the BigFix Server virtual machine: **BESFNDWINROOT**. If you are logged off, log in to the server as **Administrator** with a password of **bigfixrocks**.

_____3) Log in to the BigFix Console by double-clicking the **BigFix Console** icon on the Windows desktop.

_____4) Enter **adminmo** as the user name, and enter **B1gfixrocks** as the password. Click **Login.** The Console opens.

You have now successfully completed Exercise 3.

Exercise 4 - Validate the Root Server

In this exercise, you will configure the BigFix Server.

_1) From the **Windows Start** menu select **BigFix -> BigFix Diagnostics Tool**. The BigFix Diagnostics Tool opens.

rver	Services Web Reports About					
0	BES Root Server Running	?				
	Server logged in as: LocalSystem					
	Client Register Plugin	?				
)	Post Results Plugin	?				
)	BESGatherMirror Plugin	?				
0	BESGatherMirrorNew Plugin	?				
	BESMirrorRequest Plugin	?				
)	Verifying that Server can reach the Internet, using the proxy if configured (This might not pass immediately after a fresh install).					
)	Verifying that besfndwinroot refers to this machine	?				
)	Checking that this machine is not a domain controller					
)	Checking that this machine is running a Windows server operating system	?				
)	Checking that this machine is running the BES Client	?				
)	Checking that TCP/IP is enabled on SQL server	0				
	ult out of 12 tests passed	<				

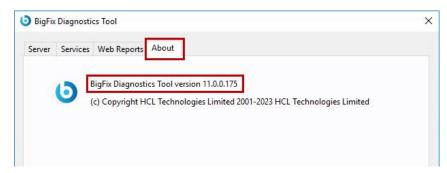
____2) Select the Server tab if it is not already selected and verify that there is a green checkmark beside all the checks. _3) Select the **Services** tab. Verify that there is a green checkmark beside all the BigFix services.

erver Services Web	Reports About	
FillDB Service Ins	talled	0
FillDB Service Ru	nning	0 0 0
GatherDB Service	e Installed	0
GatherDB Service	e Running	0
View Server I	Diagnostics	
	-	
Result		^
	d	^
	d	
	d	< >
	d	
	d	×

____4) Select the Web Reports tab. Verify that the Web Reports Server is running.

BigFix Diagnostics Tool	×
Server Services Web Reports About	
WebReports is installed; testing installation.	
Web Reports Server Running	0

__5) Select the **About** tab. Verify that the **Server Diagnostics version** matches the version of the BigFix platform that you installed.

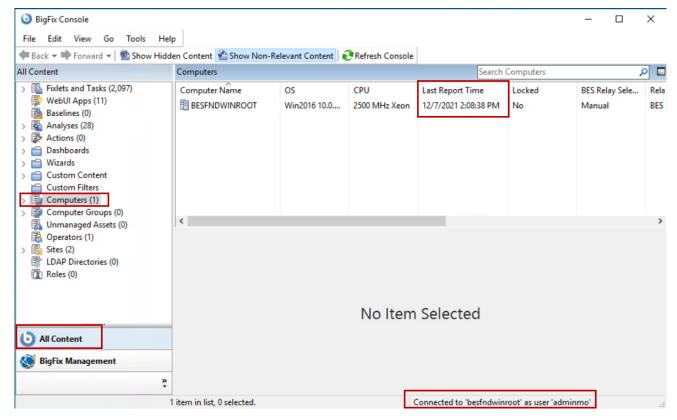


____6) Click **CLOSE**. The BigFix Diagnostics Tool closes.

___7) Return to the BigFix Console. If it is not open, then double-click the BigFix Console icon on the Windows Desktop. Enter adminmo as the user name and B1gfixrocks as the password and click Login.

The BigFix Console opens.

_8) Select the **Computers** node in the **All Content** domain and verify that the **BESFNDWINROOT** computer object appears in the list. Review the **Last Report Time** and ensure that the computer has reported recently. Review the Console connection information in the lower-right portion of the **Console**.



You have now successfully completed Exercise 4.

Exercise 5: Enabling External Sites

MASTER OPERATOR REQUIRED

You have validated that the environment is installed and running. You now enable external sites and configure BigFix. This process could take up to 30 min to complete because the BigFix Server must perform a full gather and import of all the enabled external sites

_____1) Return to the **BigFix Console**. If you are logged off, log in as **adminmo** with a password of **B1gfixrocks**.

2) Click the **BigFix Management** domain in the lower-left portion of the Console. The navigation pane is updated to show only content from the BigFix Management domain.

_3) Select License Overview in the navigation pane. The License Overview dashboard opens.

BigFix Console				-		\times
File Edit View Go Tools Hel	p					
年 Back 🔻 🗭 Forward 👻 🗟 Show Hidd	en Content 🏾 🏠 Show Non-Relevant Content	Refresh Console				
BigFix Management	License Overview					2
Deployment Overview Deployment Health Checks License Overview	BigFix License Overview	I	Last Update: 12/7/2021 2:25:21 PM	0	G	ē
BES Deployment Upgrade (1,760) BES Component Management (107 Maintenance Window Management		BIGFIX MOBILE	COMPLIANCE	INVENTO	RY	>
Manage Wake-on-LAN (10) Baselines (0) Analyses (28)	BES Platform					^
 Actions (0) Custom Content Custom Filters Computer Management Unmanaged Assets (0) Operators (1) 	Serial Number: License Update Date: Gather URL:	152271149 12/7/2021 12:15: http://besfndwinn	:39 PM oot:52311/cgi-bin/bfgather.exe/actionsite	44 4		l
> 🚮 Manage Sites (2)	CHECK FOR LICENSE UPDATE					
All Content	License overview					
BigFix Management	<				>	Ť
		C	onnected to 'besfndwinroot' as user 'admin	mo'		

_4) Using the arrow in the upper-right portion of the License Overview dashboard, scroll to the right until you locate **Lifecycle**. Click **LifeCycle**. The **Product EULA Info** for **LifeCycle** is displayed in the lower portion of the dashboard.

_5) Scroll down and click **Accept**. The dashboard view updates to show a list of external sites that are associated with the LifeCycle domain.

Big	Fix Licen	se Overview	Last Update: 12/7/2021 2:25:21 PM	C	ē
A g s s n r	grants License such as a Proc specified level may also be lim estrictions. As permitted witho	e a limited right to use the essor Value Unit ("PVU") of use, paid for by Licens nited to a specified machi Licensee has not paid fo	PCI DSS SECURITY AND COMPLIANCE BIGFIX LABS a Agreement and this License Information document, HCL a Program. This right is limited to the level of Authorized Use, b, a Resource Value Unit ("RVU"), a Value Unit ("VU"), or other see as evidenced in the Proof of Entitlement. Licensee's use ine, or only as a Supporting Program, or subject to other or all of the economic value of the Program, no other use is bonal fees. In addition, Licensee is not authorized to use the		
ti	imesharing, or applicable agre	to sublicense, rent, or lea ements under which Lice	ces to any third party, to provide commercial hosting or ase the Program unless expressly provided for in the ensee obtains authorizations to use the Program. Additional	~	
ti	imesharing, or applicable agre	to sublicense, rent, or lea ements under which Lice	ase the Program unless expressly provided for in the	~	

_6) Select **BIGFIX LABS** in the products section at the top of the **BigFix License Overview** dashboard. Place a **checkmark** beside **I agree** in the lower-portion of the dashboard.

BI	IgFIX Licer	nse Overview	Last Update: 12/7/2021 2:33:12 PM	G
<	TORY	LIFECYCLE	PCI DSS SECURITY AND COMPLIANCE	
	BigFix Labs is a		al product features and tools that we, the BigFix team, think are	
s	so please test or Note that BigFix To access Big	n an lab or QA system be Labs is NOT part of any l gFix Labs, you must chec	tures and tools delivered through BigFix Labs do NOT go throu fore deploying these tools in your environment. BigFix product. As such, BigFix Labs is unsupported, and we a sk the "I agree" box below. If you do not check the "I agree" box e agreement for BigFix Labs is not the license agreement that	are providi x, you may
s	To access Big BigFix Labs c	n an lab or QA system be Labs is NOT part of any l gFix Labs, you must chec	fore deploying these tools in your environment. BigFix product. As such, BigFix Labs is unsupported, and we a ck the "I agree" box below. If you do not check the "I agree" box	are providi x, you may

___7) Select **LIFECYCLE** in the products section of the **BigFix License Overview** dashboard. You now enable external sites and subscribe computers to those sites. Enabling a site allows BigFix to gather content for this site making the site content available for subscribed endpoints to evaluate.

_8) Click the **Enable** for each of the following sites.

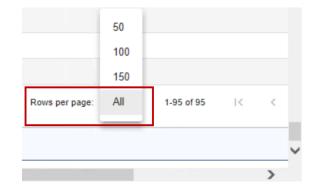
NOTE: Please enable only the sites listed below so that you do not exceed the drive space on the BESWINROOT virtual machine. As you click the **Enable** link, each site will be move to the top of the list and the **Enable** link changes to **Enabled**:

- ____a) BES Asset Discovery
- ____b) BES Inventory and License
- ____c) Patches for CentOS7 Plugin R2
- ____d) Patches for RHEL 7
- ____e) Patches for Windows (English)

Note: This site is displayed as Enterprise Security after it is gathered.

- ____f) Patching Support
- ____g) Software Distribution
- ____h) Updates for Windows Applications
- ____i) cyberfocus

Important: The License Overview dashboard displays 50 sites at a time by default. You might have to change the displayed Rows per page at the bottom of the dashboard to locate every all of the external sites in the list.

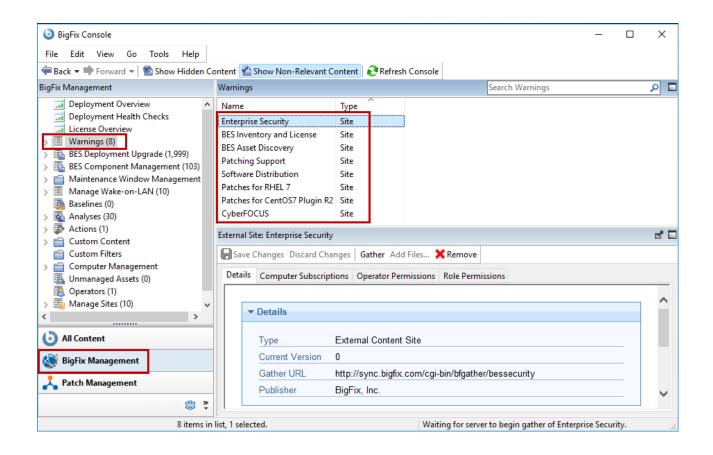


Big	Fix License	Overview	Last Update: 2/23/2	023 8:32:49 AM 🕜 C
<	NTORY	LIFECYCLE F	PCI DSS SECURITY AND COMPLIANCE	BIGFIX LABS
_	Enabled 🗸	Sites		Subscribed Co
	ENABLED	BES Asset Disco	very	0
	ENABLED	BES Inventory an	nd License	0
	ENABLED	CyberFOCUS		0
	ENABLED	Enterprise Securi	ity	0
	ENABLED	Patches for Cent	OS7 Plugin R2	0
	ENABLED	Patches for RHE	<u>L7</u>	0
	ENABLED	Patching Support		0
	ENABLED	Software Distribu	tion	0
	ENABLE	Advanced Patchi	ng	

Waiting for server to begin gather of Enterprise Security.

You now subscribe computers for each of the external sites that you enabled. Before computers can be subscribed, the BigFix Server must gather and import the site contents into the BigFix Enterprise DB.

_9) Select the **BigFix Management** domain in the lower-left portion of the Console and then click the **Warnings** node in the navigation pane. The List pane is updated to show a list of the external sites that do not currently have computers subscribed.



_10) Click an external site name that is displayed in the list area. The details for the selected site are shown in the work area below.

_11) Select the **Computer Subscriptions** tab. Click the **All Computers** radio button and then click **Save Changes** to keep your chosen subscriptions.

Important: You are only able to subscribe computers to those sites whose content has been gathered by the BigFix Server and imported into the database. If the Current Version shown on the Details tab is 0 then all the options on the Computer Subscriptions tab will be greyed out. You must wait until the site has been gathered before you can subscribe computers.

Warnings		S	earch Warnings	۵ م
Name	Туре			
Patches for Windows	Site			
BES Inventory and License	Site			
BES Asset Discovery	Site			
Updates for Windows Applications	Site			
Patching Support	Site			
Software Distribution	Site			
Patches for RHEL 7	Site			
Patches for CentOS7 Plugin R2	Site			
External Site: BES Inventory and Licen	se			ď 🗆
Save Changes Discard Changes	Gather Add Files 🗙	Remove		
Details Computer Subscriptions	Operator Permissions	Role Permissions		
The following computers will be s All computers No computers 	ubscribed to this site:			
O Computers which match the o	condition below			
Computer Name	 ✓ contains 	~		- +
		Patches for RHEL 7	gather completed.	A 15 1.1

12) Repeat the previous step for each of the external sites that are shown in the list area. As the site subscriptions are completed, they will be removed from the list of sites that are displayed in the list area.

You have now successfully completed Exercise 5.

Exercise 6: Post-Install Steps – Activating Analyses

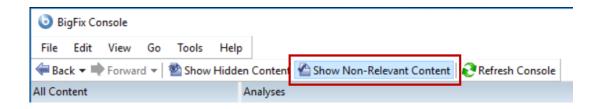
MASTER OPERATOR REQUIRED

In this section, you activate several analyses that are delivered with the external site content. These Analyses are a key part of BigFix. They allow BigFix to gather information from the subscribed endpoints and use that information to populate various dashboards. As additional external sites are enabled, you must review the Analyses that are associated with those sites and Activate the ones that are required.

_____1) Return to the **BigFix Console**. If you are logged off, log in as **adminmo** with a password of **B1gfixrocks**.

___2) Select the **All Content** domain in the lower-left portion of the **Console**. Then select the **Analyses** node in the navigation pane. The list area is updated to show a list of all the Analyses that are associated with the external sites that you enabled in the previous exercise.

__3) Verify that the **Show Non-Relevant Content** button at the top of the Console is enabled. When enabled, the Console shows all content whether that content is Relevant to any computers or not.



_4) Click the **Name** column in the **List Area** of the **Console**. The Analyses are sorted in ascending order by their name and an arrow appears above the Name column to show the sort order for the display.

	Search	Analyses	۵ ک
Name	Site	Applicable Computer C	Activated [
"Shell Shock" bash Vulnerability (Patching Support	0	
(Deprecated) Adobe Product Det	BES Inventory and Licen	1	
(Deprecated) Microsoft Office Sui	BES Inventory and Licen	0	
(Deprecated) Microsoft Project Ve	BES Inventory and Licen	0	
(Deprecated) Microsoft SQL Serve	BES Inventory and Licen	1	
(Deprecated) Microsoft Visio Versi	BES Inventory and Licen	0	
(Deprecated) Physical / Virtual Co	BES Inventory and Licen	1	
Active Directory Security Groups	Software Distribution	1	
Amazon Web Services Plugin Sett	BES Support	0	
Amazon Web Services Resources	BES Support	0	
Application Information (AIX)	RES Inventory and Licen	0	v
	"Shell Shock" bash Vulnerability ((Deprecated) Adobe Product Det (Deprecated) Microsoft Office Sui (Deprecated) Microsoft Project Ve (Deprecated) Microsoft SQL Serve (Deprecated) Microsoft Visio Versi (Deprecated) Physical / Virtual Co Active Directory Security Groups Amazon Web Services Plugin Sett Amazon Web Services Resources	Name Site "Shell Shock" bash Vulnerability ((Deprecated) Adobe Product Det Patching Support (Deprecated) Microsoft Office Sui BES Inventory and Licen (Deprecated) Microsoft Project Ve BES Inventory and Licen (Deprecated) Microsoft SQL Serve BES Inventory and Licen (Deprecated) Microsoft Visio Versi BES Inventory and Licen (Deprecated) Microsoft Visio Versi BES Inventory and Licen (Deprecated) Physical / Virtual Co BES Inventory and Licen (Deprecated) Physical / Virtual Co BES Inventory and Licen Active Directory Security Groups Software Distribution Amazon Web Services Plugin Sett BES Support Amazon Web Services Resources BES Support	"Shell Shock" bash Vulnerability (Patching Support0(Deprecated) Adobe Product DetBES Inventory and Licen1(Deprecated) Microsoft Office SuiBES Inventory and Licen0(Deprecated) Microsoft Project VeBES Inventory and Licen0(Deprecated) Microsoft SQL ServeBES Inventory and Licen1(Deprecated) Microsoft Visio VersiBES Inventory and Licen1(Deprecated) Microsoft Visio VersiBES Inventory and Licen1(Deprecated) Physical / Virtual CoBES Inventory and Licen1Active Directory Security GroupsSoftware Distribution1Amazon Web Services Plugin SettBES Support0Amazon Web Services ResourcesBES Support0

_5) Select any **Analysis** in the list. You can then type **Ctrl-A** to select every **Analyses** in the list and then while depressing the **Ctrl** key select each of the **Analyses** with **(Deprecated)** in the name. The result is that all Analyses except the Deprecated ones are selected.

_6) **Right-click** in the list-area over any selected **Analysis** and choose **Activate** from the **Context** menu.

Analyses				Search Analyses	
Status	Name	~	Site	Applicable Comp	uter C Activated I
Not Activated	"Shell Shoc	k" bash Vulnerability (Patching Support	0	
Not Activated	(Deprecated	d) Adobe Product Det	BES Inventory and I	Licen 1	
Not Activated	(Deprecated	d) Microsoft Office Sui	BES Inventory and I	Licen 0	
Not Activated	(Deprecated	d) Microsoft Project Ve	BES Inventory and I	Licen 0	
Not Activated	(Deprecated	d) Microsoft SQL Serve	BES Inventory and I	Licen 1	
Not Activated	(Deprecated	d) Microsoft Visio Versi	BES Inventory and I	Licen 0	
Not Activated	(Deprecated	d) Physical / Virtual Co	BES Inventory and I	Licen 1	
Not Activated	Active D	Open	istributio	on 1	
Not Activated	Amazon		rt	0	
Not Activated	Amazon	Copy Text	rt	0	
Not Activated	Annlicat	Copy Text with Heade	ers and I	licen A	
<		Select All			>
Analysis: "Shell Shoc	k" bash Vulne	Globally Hide			ď
Nctivate 🎡 Dea	activate 🖉 E	Globally Unhide	ally 🐊	Remove	
Description -		and the second second			
Description Deta	ils Applicab	Locally Hide			
		Locally Unhide			~
Description	1	Activate	N		
		Deactivate	6		
	ity (CVE-20	Add Comment		heck for "Shell Shock" l ile to detect vulnerabili	
	update this).	ile to detect vullierabilit	.y. III
		Edit			
items in list, 91 sele	cted.	Remove	d to 'be	sfndwinroot' as user 'admin	imo'
in the set of the		Export	a to be	and a set of the set of the	

The status for each of the select Analyses changes from Not Activated to Activated Globally.

Analyses		Search	Analyses	Q	E
Status	Name	Site	Applicable Computer C	Activated	e ^
Activated Globally	"Shell Shock" bash Vulnerability (Patching Support	0	adminmo	
Not Activated	(Deprecated) Adobe Product Det	BES Inventory and Licen	1		
Not Activated	(Deprecated) Microsoft Office Sui	BES Inventory and Licen	0		
Not Activated	(Deprecated) Microsoft Project Ve	BES Inventory and Licen	0		
Not Activated	(Deprecated) Microsoft SQL Serve	BES Inventory and Licen	1		
Not Activated	(Deprecated) Microsoft Visio Versi	BES Inventory and Licen	0		
Not Activated	(Deprecated) Physical / Virtual Co	BES Inventory and Licen	1		
Activated Globally	Active Directory Security Groups	Software Distribution	1	adminmo	
Activated Globally	Amazon Web Services Plugin Sett	BES Support	0	adminmo	
Activated Globally	Amazon Web Services Resources	BES Support	0	adminmo	
Activated Globally	Application Information (AIX)	RES Inventory and Licen	0	adminmo >	~

Tip: Make sure that you choose Activate from the Context menu. If you choose the Activate button that is shown in the Work area, then only that selected Analysis is activated.

You have now successfully completed Exercise 6.

Exercise 7: Post-Install Steps – Install the BigFix Agent

MASTER OPERATOR REQUIRED

In this exercise, you use the Client Deploy Tool to remotely install the BigFix Agent on client computers.



Important: Installing agent remotely using the Client Deploy Tool has sever prerequisites. **There are several things that will prevent this from working as desired in this lab.** None of which BigFix can address directly. These include things like ACL's, Firewall Rules, open ports, services configured for remote install. You will need to review the documentation for the Client Deploy Tool target prerequisites to ensure that the Windows 10 target is configured to support remote installs. You can review the documentation: <u>here</u>. Please review each prerequisite and make the changes accordingly before attempting the remote install.

____1) Switch to the **BESFNDWINROOT** virtual machine and return to the BigFix Console as **adminmo** with a password of **B1gfixrocks**.

2) Verify that none of the virtual machines in the image set are in a suspended state. The virtual machines automatically suspend after 2 hours with no activity.

_____3) Select the **BigFix Management** domain in the lower-left portion of the **Console**. The navigation pane updates to show only the BigFix Management content.

_4) Select the **BES Deployment Upgrade** node in the navigation pane. The List area in the upper-right portion of the Console is updated to show the Deployment Upgrade content.

BigFix Console				-		\times
File Edit View Go Tools Hel	p					
< Back 🕶 🖶 Forward 💌 🕋 Show Hidd	en Content 🖀 Show Non-Relevant Content 🧞 Refresh	Console				
BigFix Management	BES Deployment Upgrade		Search BES	Deployment Upgrad	e 🔎	
Deployment Overview Deployment Health Checks License Overview BES Deployment Upgrade (1) BES Component Management (33) Maintenance Window Management		Source Severity	Site BES Support	Applicable Co 1 / 1	Open Action 0	ı C
> I Manage Wake-on-LAN (3)	٢					>
 Baselines (0) Analyses (11) Actions (1) Custom Content Custom Filters 	Fixlet: Upgrade BES Client Logging Service Take Action Image: Edit Copy Export Hide Locat Description Details Applicable Computers (0) Action		K Remove			
 Computer Management Unmanaged Assets (0) Operators (1) 	Description					^
> 🚮 Manage Sites (10)	BigFix has released an upgrade to the B several bug fixes and BigFix highly recon upgrade is required to upgrade the BES Extensions are installed.	nmends that all	customers appl	ly the upgrade. Th		
All Content	Use the action below to upgrade to the	latest version o	of the BES Client	Logging Service.		
SigFix Management	Note: This action will temporarily stop th upgrade to occur at a time when a servi The following BigFix Extensions require t	ce interruption	is acceptable.		ie	~
\$\$ *						
1	1 item in list, 0 selected.	Connecte	d to 'besfndwinroo	t' as user 'adminmo'		

____5) Click the **Install Bigfix Clients with Client Deploy Tool** Task in the list area. The details for the selected Task are shown in the work area below.

__6) Verify that the **Description** tab is selected in the work area. **Scroll down** in the **Description** tab and locate the parameters that must be entered on the Description tab before taking the action. Enter the parameters as follows:

- a) Operating systems: Place a check beside the Windows OS and Linux Intel options.
- b) Client Version: Select **11.0.0.175** from the drop-down list. The selected version should match or be older than the Root Server/Relay version.
- c) Client Deploy Tool Computer credentials:
 - Username: Administrator
 - Password: bigfixrocks

on Details Applica	ble Computers (1) Action History (0)	
Operating systems		
Select the operation	g system families to be deployed.	
✓ Windows OS	✓ Linux Intel	
Linux PPC		
	SunOS Intel	
SunOS SPARC	Mac OS	
Linux ARM		
Select the client ve	rsion to be installed	
Select the client ver	rsion to be installed	
Client Version 11.0.0.175 V	rsion to be installed	
lient Version 11.0.0.175 ✓ ient Deploy Tool (pecify the creden		
Client Version 11.0.0.175 V Client Deploy Tool of Specify the creden They are required of	computer credentials tials of a user that has access to the computer where the Client Deploy	

___7) Enter the following information for the **BESFNDWIN10** client in the **Targets** section of the **Description** tab:

____a) Computers: besfndwin10

____b) Username: tecuser

____c) Password: bigfixrocks

Description Details Applicable Computers (1) Action History (0)	_
Targets Specify the following information for the target computers that you want to deploy: • List of IP addresses/hostnames/IP address ranges (e.g. "192.0.2.1-20"), separated by newline. • The user credentials needed for the connection. <> Computers <> Username <> Password besfndwin10	^
tecuser Clear Remove	

_8) Click **Add group of targets**. A new Computers section opens in the Description tab where you can specify the Linux target information.

___9) Enter the following information for the **BESFNDCENTOS** client in the **Targets** section of the **Description** tab:

____a) Computers: besfndcentos

____b) Username: root

____c) Password: bigfixrocks

Detail	s Applicable Comput	ters (1) Acti	on History (0)			
• Li		ostnames/IF	address ranges	that you want to deplo (e.g. "192.0.2.1-20"),	*	-
<> besfno	Computers	< > tecuser	Username	<>> Password	Clear	
<> besfno	Computers dcentos	< >	Username	<> Password	Clear	

____10) Click **Take Action**. The Take Action window opens.

_____11) Select the **Target** tab if it is not already selected and select **BESFNDWINROOT** from the list of available targets.

____12) Click: **OK** to initiate the action. Monitor the status of the action and wait for the status to change to **Completed** before continuing.

___13) Click the **All Content** domain in the lower-left portion of the **Console**, then click the **Computers** node in the **navigation pane**. The list area shows a list of all computers with the BigFix Agent installed.

_14) Review the list of managed computers in the list area. You should now see 3 computers in the list.

o BigFix Console							- 0	×
File Edit View Go Tools H	elp							
두 Back 🔻 빠 Forward 👻 🖄 Show Hit	den Co	ntent 🖀 Show Non-R	elevant Content	Refresh Console				
All Content	Com	puters			Search	Computers		<u>Р</u> [
 Fixlets and Tasks (605) WebUI Apps (11) Baselines (0) 	iii e	nputer Name BESFNDCENTOS	OS Linux CentOS	CPU 2500 MHz Xeon	Last Report Time 12/8/2021 8:43:06 AM	Locked No	BES Relay Sele Manual	Rel
 Analyses (43) Actions (2) 	Ē	BESFNDWIN10 BESFNDWINROOT	Win10 10.0.18 Win2016 10.0	2500 MHz Xeon 2500 MHz Xeon	12/8/2021 8:43:48 AM 12/8/2021 8:44:38 AM	No No	Manual Manual	BES
> 💼 Dashboards > 💼 Wizards > 💼 Custom Content	< Com	puter: BESFNDCENTO	5					: ۲
Custom Filters Computers (3) Computer Groups (0) Computer Groups (0) Companaged Assets (0) Coperators (1)		Settings 🗙 Remove Immary Relevant Fixle			(0) Baseline Componen		Action History (0)	· ·
Sites (10) LDAP Directories (0) All Content	~	Computer Pro Core Properti						1
BigFix Management		Computer ID Agent Type	5527070 Native)07				
Ratch Management		Active Director	,	entOS 7 5 1804 (3 10 0-862 el7 x86 64)			~
\$,	
					Connected to 'besfndwin	root' as user 'a	dminmo'	

Tip: If you do not see 3 managed computers in the list, the most likely cause is a missed BigFix Client Deploy Tool prerequisite or an incorrect password. You can go back and review the target prerequisites to verify that they have all be completed correctly. You can also review the **BESClientDeployTool.log** file located in the following directory on the **BESFNDWINROOT** virtual machine:

C:\Program Files (x86)\BigFix Enterprise\BES Console\BesClientDeploy

You have now successfully completed Exercise 7.

Exercise 8: Post-Install Steps – Create Computer Groups

MASTER OPERATOR REQUIRED

Computer groups are very useful. They provide a way to organize the endpoints in logical groups. You can group them by OS, by IP, by Computer Name, or any other way that is meaningful for your organization. There are 4 types of Computer Groups; Automatic, Manual, Ad-Hoc, and Server Based

In this exercise you create both Automatic and Manual computer groups.

__1) Switch to the BESFNDWINROOT virtual machine and login to the BigFix Console as adminmo with a password of B1gfixrocks.

___2) From the **Tools** menu select **Create New Automatic Computer Group**. The Create Automatic Computer Group window opens.

 O BigFix Console File Edit View Go Ti Back ▼ Porward ▼ 	ools Help		Refresh Console			- 0	×
Il Content		nt I	C Refresh Console	Search	Computers		PE
	Create New Task Create New Baseline Create New Analysis Create New Automatic Computer Group Create New Server Based Computer Group Create New Manual Computer Group Add/Update External Site Masthead	_	CPU 2500 MHz Xeon 2500 MHz Xeon 2500 MHz Xeon Send Refresh	Last Report Time 12/17/2021 12:13:06 12/15/2021 1:32:22 P 12/17/2021 12:18:50	Locked No No No	BES Relay Sele Manual Manual Manual	Rel bes BES
	Add Files to Site		Relevant Baselines	(0) p r c		1	
> 📴 Computer Groups (0 🚮 Unmanaged Assets (📻	Add LDAP Directory	510)	Name	(0) Baseline Componer	t Applicability	Action History (0) Site	• •
Computer Groups (0 Unmanaged Assets (Operators (1) Sites (10) LDAP Directories (0)		510)	Name	ems meet the filter criteri			
Computer Groups (0 Unmanaged Assets (Operators (1) Sites (10) LDAP Directories (0)	Create Custom Site Create Operator Add LDAP Operator Create Role Create Custom Filter Ctrl+Shift+F		Name				
Computer Groups (0 Unmanaged Assets (Operators (1) Sites (10) LDAP Directories (0) All Content	Create Custom Site Create Operator Add LDAP Operator Create Role		Name				<u>.</u>

_____3) Enter Windows Group in the Group name field.

____4) Accept the default value **Master Action Site** in the **Create in site** drop-down box.

____5) Accept the default value **All Content** in the **Create in Domain** drop-down box.

- 6) Set the **Include Computers with the following property** filter as follows:
 - ____a) Select **OS** from the first drop-down box.
 - ____b) Select **contains** from the second drop-down box.
 - ____c) Enter **win** in the text field.

_7) Click **Create**.

Create Automatic Computer	Group ×
Group name:	Windows Group
Create in site:	Master Action Site \checkmark
Create in domain:	All Content ~
Include computers with the	ollowing property:
OS	✓ contains ✓ win - +
	Create Cancel

___8) Repeat the steps above to create an Automatic Group for Linux. Set the Group name and filter property as follows:

____a) Group name: Linux Group

____b) Include Computers with the following property: **OS contains linux**.

Create Automatic Computer	Group			\times
Group name:	Linux Group			
Create in site:	Master Action Site	\sim		
Create in domain:	All Content	\sim		
Include computers with the	following property:			
OS	 ✓ contains 	√ linux	-	+
			Create Cancel	

_9) Click **All Content** from the domain pane in the lower-left portion of the **Console** and then select the **Computers** node from the navigation pane. The list area in the upper-right portion of the Console updates to show the managed endpoints.

_10) Right click the **BESFNDWIN10** computer and select **Add to Manual Group** from the context menu.

BigFix Console							- 0	×
File Edit View Go Tools Hel ⇐ Back ▾ ➡ Forward ▾ 🖄 Show Hidd		Relevant Content	Refresh Console					
All Content	Computers			5	Search	Computers		P [
> Texlets and Tasks (616) WebUI Apps (11) Baselines (0)	Computer Name BESFNDCENTOS	OS Linux CentOS	CPU 2500 MHz Xeon	Last Report Time 12/17/2021 1:12:	11 P	Locked No No	BES Relay Sele Manual Manual	Rela bes
 Analyses (43) Actions (2) Cashboards 	BESFNDWINROOT	Win Cop	n y Text y Text with Headers		*********	No	Manual	BES
 Wizards Custom Content Custom Filters Computers (3) Computer Groups (2) 	Computer: BESFNDCENTO Edit Settings X Remove Summary Relevant Fib	S Sele From E Edit	ct All Computer Settings dify Custom Site Subs		one	nt Applicability	Action History (0)	₫ E • •
Computer Groups (2) Groups (🖺 Relevant Baselin	Ren Rev Viev	Comment nove From Database oke Certificate v as Group I To Manual Group		riter	ia.	Site	
SigFix Management		Sen	d Refresh					
\$ *			<					>
	items in list, 1 selected.			Connected to 'best	fndwin	root' as user 'a	dminmo'	

The Select Manual Computer Group window opens.

_____11) Enter Lab Manual Group in the text field and click OK.

Group Name	^	Computers
Add the selected computer of the selected c	ers to a new manual group named:	

The manual group is created.



Note: Manual groups are just that, manual and you must add and remove computers from the group manually. Membership criteria for Automatic Groups is constantly being evaluated by the endpoints. If an endpoint no longer meets the criteria for membership in the group, it is automatically removed. Likewise, if a computer meets the membership criteria for the Automatic Group, it is added.

__12) Select **Computer Groups** from the **All Content** navigation pane. The list area shows the 3 groups that were created during the exercise.

Computer Groups			Search Computer Groups	2
Name	Туре	Site	Member Computer Count	
Windows Group	Automatic	Master Action Site	2	
Linux Group	Automatic	Master Action Site	1	
Lab Manual Group	Manual		1	

You have now successfully completed Exercise 8.

Exercise 9: Adding a Role and Creating a Local Operator Account

MASTER OPERATOR REQUIRED

In this exercise, you add a new BigFix non-master operator role, create a local operator account and assign the role to the account.

- ____1) Switch to the BESFNDWINROOT virtual machine and login to the Console using adminmo with a password of B1gfixrocks.
- _____2) Select **Tools > Create Role** from the Console menu. The Create Role window is displayed.
- _____3) Enter Linux Non-Master Operator as the name of the role and click OK. The Role: Linux Non-Master Operator pane is displayed on the right portion of the Console.
 - ____4) Enter the following string in the **Description** field:

Non-master operators associated with this role manage only Linux Endpoints.

Role:	Linux	Non-Maste	r Operator						ď
Bs	ave C	hanges Dis	card Changes	🗙 Remove					
Det	tails	Computer	Assignments	Operators (0)	LDAP Groups (0)	Sites (0)	WebUI Apps (13)		
									~
	De	tails							
		Name	Linux N	on-Master Op	erator				
		Description	manag		ators associa ux Endpoints.		th this role	^	
								\checkmark	

- ____5) Set the values in the **Permissions** section as follows:
 - ____a) Master Operator: No
 - ____b) Show Other Operators' Actions: Yes

____c) Stop Other Operators' Actions: Yes

____d) Can Create Actions: Yes

____e) Can Lock: Yes

____f) Can Send Refresh to Multiple Computers: No

____g) Can Submit Queries: Yes

____h) Custom Content: Yes

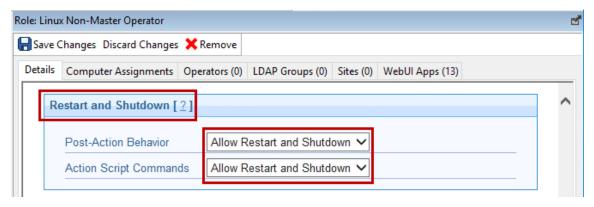
____i) Unmanaged Assets: Show All

ave (Changes Discard Changes 💥 Remove		
ails	Computer Assignments Operators (0) LDA	P Groups (0) Sites (0)	WebUI Apps (13)
Pe	ermissions		
			7
	Master Operator	No 🗸	
	Show Other Operators' Actions	Yes 🗸	
	Stop Other Operators' Actions	Yes 🗸	
	Can Create Actions	Yes 🗸	
	Can Lock	Yes 🗸	
	Can Send Refresh to Multiple Computers	No 🗸	
	Can Submit Queries	Yes 🗸	
	Custom Content	Yes 🗸	
	Unmanaged Assets	Show All	

____6) Set the permissions in the **Restart and Shutdown** section as follows:

___a) Post Action Behavior: Allow Restart and Shutdown

___b) Action Script Commands: Allow Restart and Shutdown



- _7) Set the permissions in the Interface Login Privileges section as follows:
- ____a) Can User Console: Yes
- ____b) Can Use WebUI: Yes
- ____c) Can Use REST API: Yes

Role: Linux	x Non-Master Operator					ď
Bave C	Changes Discard Changes	Remove				
Details	Computer Assignments	Operators (0)	LDAP Groups (0)	Sites (0)	WebUI Apps (13)	
	terface Login Privileg	06				^
	tenace Login i nineg	63				
	Can use Console	Yes 🗸				
	Can use WebUI	Yes 🗸				
	Can use REST API	Yes 🗸				
						\sim

_____8) Select the **Sites** tab at the top of the **Linux Non-Master Operator** pane, and then click **Assign Site**. The Add Site To Role window opens.

___9) While holding down the CTRL key, select the following Sites then click Add:

- ____a) BES Support
- ____b) BES Inventory and License
- ____c) BES Asset Discovery
- ____d) Patching Support
- ____e) Software Distribution
- ____f) Patches for RHEL 7
- ____g) Patches for CentOS7 Plugin R2

				Search Sites	
Vame	Туре	Creator	Domain	Pres 1	
BES Support	External				
atches for Windows	External				
ES Inventory and License	External				
ES Asset Discovery	External				
pdates for Windows Applications	External				
atching Support	External				
oftware Distribution	External				
atches for RHEL 7	External				
atches for CentOS7 Plugin R2	External				
yberFOCUS	External				

_10) Select the **Computer Assignments** tab at the top of the **Linux Non-Master Operator** pane then click **Add.** The Add Management Rights window is displayed.

_11) Expand the All Computers > By Group nodes and then select Linux Group. Click OK.

Add Management Rights		×
Assign the role management rights on all of the comp	uters whose retrieved properties match those selected below:	
 ✓ All Computers (3) > By Retrieved Properties ✓ By Group Lab Manual Group (1) ✓ Linux Group (1) ✓ Windows Group (2) 	This role has management rights on all computers that have the retrieved property values shown on the left. This role does NOT have management rights on any computers that do NOT have the retrieved property values shown on the left. This role will automatically be granted management rights on (or will have management rights removed on) any computers that change to match (or to not match) the retrieved property values shown on the left.	
	OK Cancel	

_12) Select the **WebUI Apps** tab at the top of the **Linux Non-Master Operator** pane.

_13) While holding down the CTRL key, select the following WebUI Applications then click Allow:

- ____a) autopatch
- ____b) content
- ____c) custom
- ____d) patch
- ____e) query
- ____f) swd
- ____g) workflow

ave Changes Discard Ch	anges 🗙	Remove				
tails Computer Assignm	nents Ope	erators (0)	LDAP Groups (0)	Sites (6)	WebUI Apps (13)	
Allow	Non	e				
Name		Permis	sions			
autopatch		None				
cmep		None				
content		None				
custom		None				
insights		None				
ivr		None				
mdm		None				
patch		None				
prfmgr		None				
query		None				
scm		None				
swd		None				
workflow		None				

____14) Click **Save Changes** in the upper-left portion of the **Linux Non-Master Operator** pane. The role is created with the specified permissions.

You now create the local operator account and associate it with the Linux Non-Master Operator role.

_15) Select **Tools > Create Operator** from the Console menu. The Add User window is displayed.

- _16) Define the new local operator account by entering the following in the **Add User** window, then click **OK**.
 - ____a) Username: **testuser**
 - ____b) Password: B1gfixrocks
 - ____c) Verify password: B1gfixrocks

Add User	×
Username: testuser	
Password:	
Verify password:	
ОК	Cancel

The Console Operator: testuser pane opens.

___17) Select the Assigned Roles tab at the top of the Console Operator pane.

Console Operator: testuser				ď
Save Changes Discard Changes Reset	assword 🗙 Remove			
Details Administered Computers (0) Issu	ed Actions (0) Assigned Roles (0) Sites (1) Com	nputer Assignments	• •
Assign Role	Remove Role			
🔁 Assigned Roles (0)	Name	Master Operator	Unmanaged A	Cu
	No roles meet th	he filter criteria		

____18) Click **Assign Role**. The Assign Roles to User window opens.

_19) Select the Linux Non-Master Operator role and click OK

ssign Roles to User		Searc	:h Roles	
Name	Master Operator	Unmanaged A	Custom Content	Sites
Linux Non-Master Operator	No	Show All	Yes	6
<				
			ОК С	Cancel

The Assign Roles to User window closes.

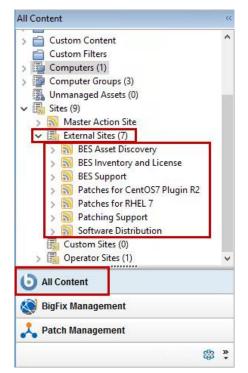
- 20) Click **Save Changes** in the upper-left portion of the **Console Operator** window.
- _____21) Close the **BigFix Console**.

_____22) Double-click the **BigFix Console** icon on the Windows desktop. The Login to BigFix window is displayed.

23) Enter **testuser** in the **User name** field and **B1gfixrocks** in the **Password** field. Click **Login**.

<u>24</u>) Select the **All Content** domain in the lower-left portion of the **Console**. The navigation pane updates to show All Content.

_25) Expand the **Sites > External Sites** nodes and verify that you only have access to the sites that were specified on the **Sites** tab during the creation of the **Linux Non-Master Operator** role.



__26) Select the **Computers** node in the navigation pane and verify that you are only able to manage the **BESFNDCENTOS** computer.

_27) Exit the BigFix Console.

You have now successfully completed Exercise 9.

Exercise 10: Set the Root Server Cache Size

MASTER OPERATOR REQUIRED

By default, the BigFix Root Server cache size is set to 1GB. This is always too small for a production environment so it should be changed to a minimum of 25GB. The same also applies to any Relays you might have in your environment.

In this exercise, you use the Task from the BigFix Management domain to increase the Root Server cache size to approximately 5GB.

Return to the BESFNDWINROOT virtual machine.

_____1) Return to the **BESFNDWINROOT** virtual machine.

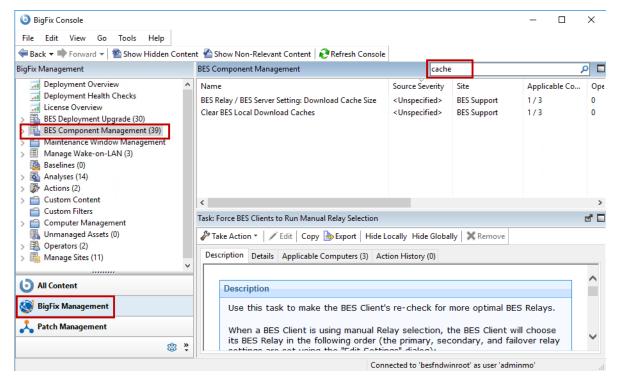
____2) Double-click the **BigFix Console** icon on the **Windows desktop**. The Login to BigFix window opens.

____3) Enter **adminmo** as the user name, and **B1gfixrocks** as the password. Click **Login.** The Console opens.

____4) Click the **BigFix Management** domain in the lower-left portion of the **Console**. The navigation pane updates to show only the content related to the selected Domain.

____5) Click the **BES Component Management** node in the **Console** navigation pane. The BES Component Management content is shown in the list pane in the upper-right portion of the console.

_6) Enter cache in the live search field in the upper-right portion of the Console.



The content list is filtered to shown only those items containing the string cache.

___7) Select the BES Relay / BES Server Setting: Download Cache Size Task from the list area. The details for the selected Task are displayed in the work area below.

____8) Select the **Description** tab and review the description of the Task.

_9) Click **Take Action**. The Action Parameter window opens.

_10) Enter **5000** in the text field of the **Action Parameter** window.

Action Parameter	×
Please enter the number of MB to cache:	^
	~
5000	
Ok Cancel	

The Take Action window opens.

___11) Select the Target tab if it is not already selected and then select BESFNDWINROOT from the list of available targets.

___12) Click **OK**. The Action pane opens.

____13) Monitor the **status** of the **Action** and wait for it to change to **Completed** before continuing.

You have now successfully completed Exercise 10.

BigFix Foundation – Configure Client Settings

Overview

BigFix Client Settings are used to provide control over the behavior of the various BigFix components. The lab exercises in this section demonstrate how to configure these settings using the BigFix Console. In these exercises you perform the following activities:

- Configure BigFix client settings to adjust the various cache sizes for managed endpoints
- Configure BigFix client settings to enable evaluation of superseded Fixlet content for Windows endpoints.

Exercise 11: Configure Client Settings

MASTER OPERATOR REQUIRED

In this exercise, you set various client settings on the Windows endpoints to enable superseded patch evaluation and improve Patch Management performance by increasing the various endpoint cache sizes.

____1) Return to the **Console** on the **BESFNDWINROOT** virtual machine.

__2) Select the **All Content** domain in the lower-left portion of the **Console**. The navigation pane updates to show all the content that is enabled in BigFix.

___3) Select the **Computers** node in the navigation pane. A list of managed endpoints is displayed in the list area in the upper-right portion of the Console.

_4) While pressing the **CRTL-key**, select the **BESFNDWIN10** and **BESFNDWINROOT** computers from the list. **Right-click** and select **Edit Computer Settings** from the context menu.

BigFix Console					-		\times
File Edit View Go Tools Help							
< Back 🕶 🖶 Forward 👻 🕋 Show Hidden Conter	nt 🖀 Show Non-Relevant Content 💦 Refres	sh Console					
All Content	Computers		Search Comp	uters			₽ □
> 🖺 Fixlets and Tasks (634)	Computer Name	OS	CPU	Last Report	Ti	Locked	
WebUI Apps (13)	BESFNDCENTOS	Linux CentOS	2400 MHz Xeon	2/23/2023 1:	:30	No	
 Baselines (0) Analyses (43) 	BESFNDWIN10	Win10 10.0.18	2400 MHz Xeon	2/23/2023 1:	30	No	
 Actions (3) 	BESFNDWINROOT	Open			33	No	
> 📋 Dashboards		Copy Text					
> 📋 Wizards		Copy Text wi	th Headers				
> Custom Content	<	Select All					>
Custom Filters	Computer: BESFNDWINROOT						N D
Computers (3) Computer Groups (3)		Edit Comput	er Settings				
Unmanaged Assets (0)	Edit Settings 💥 Remove From Database 🍋	Modify Custo	om Site Subscription	ns			
> 🖪 Operators (2)	Summary Relevant Fixlets and Tasks (109	Add Comme	nt		icabili	ty Actio	• •
> 🚯 Sites (11)		Remove From	n Database				
LDAP Directories (0)		Revoke Certif	ficate		[<u>exp</u>	and all]	~
😰 Roles (1)		View as Grou	n				
	▼ Computer Properties	Add To Manu	•				
All Content	Core Properties	Add to Man	ai oroup				
🚫 BigFix Management	Computer ID 54180	Send Refresh					
Ratch Management	Agent Type Native						<u> </u>
nater management	 Δctive Directory Path <none< td=""><td>></td><td></td><td></td><td></td><td></td><td>Ť</td></none<>	>					Ť
\$ *	<					>	
		Connected to	o 'besfndwinroot' a	s user 'adminr	no'		

The Edit Computer Settings window opens.

____5) Select the **Custom Setting** option. Define the setting **Name** and **Value** as follows:

- Name: _BESClient_WindowsOS_EnableSupersededEval
- Value: 1

	uter Settin	2-				
Settings	Target	Execution	Users	Messages		
Change	the follo	wing setting	js:			
<u> </u>	.ocking St	atus				
	Locket	ed				
	OUnlo	cked				
- F	Relay Sele	ction Metho	d			
	Auto	matically Lo	cate Bes	Relay		
	🔾 Set R	elays Manua	ally			
	Primary Re	elay				
	Main Bi	gFix Server				
	Secondary	Relay				
	Main Bi	gFix Server				
\checkmark	Custom S	etting				
	Name	BESCI	ient_Win	dowsOS_EnableSupersededEval	~	
	Value	1				
						OK Cancel

_6) Click **OK**. The Action pane is displayed.

__7) Repeat steps ____2) thru ____6) beginning on page 58 for each of the following client setting names and values:

Client Setting Name	Client Setting Value
_BESClient_Download_PreCacheStageDiskLimitMB	5000
_BESClient_Download_NormalCacheStageDiskLimitMB	5000
_BESClient_Download_PreCacheStageContinueWhenDiskLimited	1

Important: Remember to include the underscore at the beginning of the setting name. Also, make sure that you type the setting name correctly since the client uses the default values for the settings if the name is not valid or the value is out of the valid range for the setting.

You have now successfully completed Exercise 11.

Exercise 12: Verify WebUI Functionality

MASTER OPERATOR REQUIRED

In this exercise, you verify the functionality of WebUI that was installed during the platform installation.

_____1) Return to the **BESFNDWINROOT** virtual machine.

_____2) Double-click the **Firefox** icon on the Windows desktop. The Firefox browser opens.

___3) Type https://besfndwinroot in the address bar of the Firefox browser and press Enter. If you are presented with a certificate security warning, click the Advanced button and then click Accept the Risk and Continue.

The Login splash screen for the BigFix WebUI opens.

_4) Enter the login credentials as follows, then click **Log in**:

Username: adminmo

Password: B1gfixrocks

Username adminmo		
Password		
Remer	nber Me	۲
	Log in	l

The WebUI Overview page opens.

BigFix Devices	Apps -	Deployments	Reports			۰ 🔅	
Overview +				Query Edit Dashboard	Add Software	Deploy -	N.
Numbers				Patch Severity		All OS -	8
3 Devices managed 5 Critical patches w		le devices		Critical			
0 Software package 0 Custom tasks	es			Important			
0 Custom tasks 0 Baselines				Moderate			
7 Deployments that	are current	ly open		Low			
				0 50 Vul	nerabilities	100	
Deployments in the	last 30 da	iys			All Or	nly Mine	
7 Deployments		Change '_BESClin	ent_Download_P	reCacheStageCon Single Othe	er 100%✔	2 🖵	
		Change ' BESCli	ent Download N	ormalCacheStage	er 100%.✔	2 🖵	

Important: If you have any issues getting logged in to the WebUI, please inform the instructor so they can help troubleshoot the issue. The WebUI is used during the Patch and Software Distribution exercises later in the course.

____5) Click the **Log out** button located in the upper-right portion of the **WebUI**. You are logged out of the WebUI and returned to the Login page.

You have now successfully completed Exercise 12.

BigFix Foundation - Patching Windows

Student exercises

Overview

BigFix for Patch Management is a comprehensive solution for delivering Microsoft, UNIX, Linux, Mac, and select vendor application patches through a single console. Built on BigFix technology, it gives you unified, near real-time visibility and enforcement to deploy and manage patches to all distributed endpoints.

You can use the Patch Management solution by itself, but it is also included with the Lifecycle and Compliance solutions.

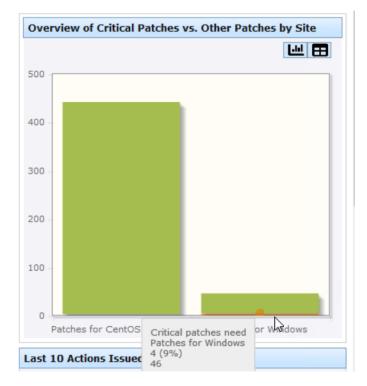
In these exercises, you use the BigFix for Patch Management solution to patch clients across the enterprise through practical end-to-end hands-on experience. The exercises in this module demonstrate how to patch Windows clients.

Exercise 13: Reviewing the Patch Management Domain

In this exercise, you review the content in the Patch Management domain.

- 1) Return to the **BigFix Console** on the **BESFNDWINROOT** virtual machine. Verify that you are logged in as **adminmo**.
- _____2) Click the **Patch Management** domain in the lower-left portion of the Console. The navigation pane is updated to show all the content that is associated with the Patch Management domain.
- _____3) Click the **Patch Overview Dashboard** in the navigation pane if it is not already selected. The Patches Overview Dashboard opens.
- _____4) Review the various statistics in the **All Patch Sites at a Glance** pane.

_5) Hover over each bar for each of the patch sites in the Overview of Critical Patches vs. Other Patches by Site section of the dashboard. Determine the number of critical patches that are outstanding for each patch site that is displayed in the dashboard.

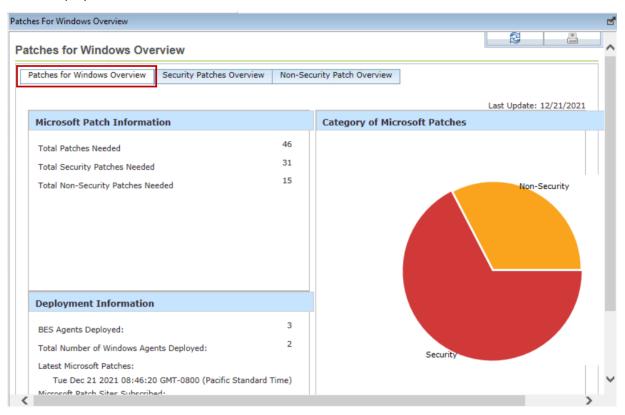




Note: The information displayed in the Patch Overview dashboard varies depending on the latest released patches.

- _____6) Review the information in the other panes of the **Patches Overview Dashboard**.
- _____7) Expand the **OS Vendors** node in the Patch Management navigation pane.
- _____8) Review the list of vendors and the relevant Fixlet counts associated with each one.
- _____9) Expand the **Application Vendors** node in the Patch Management navigation pane.
- 10) Review the list of vendors and the relevant Fixlet counts associated with each one.
- 11) Expand the All Patch Management -> Dashboards node and select the Patches for Windows Overview dashboard. The Patches for Windows Overview dashboard is displayed.

_12) Select the Patches for Windows Overview tab (if it is not already selected). Review the information that is displayed.



S.

Note: The **Patches for Windows Overview** tab shows the number and types of Microsoft patches that are needed in the environment including both security and non-security patches.

_13) Select the **Security Patches Overview** tab in the Patches for Windows Overview dashboard and review the information.



Note: The **Security Patches Overview** tab shows detailed information about the Microsoft security patches that are needed in the environment. The numbers of required security patches are broken down by severity.

__14) Select the **Non-Security Patch Overview** tab in the Patches for Windows Overview dashboard and review the information.



Note: The **Non-Security Patch Overview** tab shows detailed information about the Microsoft non-security patches that are needed in the environment. Various graphs report the information based on category, product family, and operating system.

Exercise 14: Applying a Windows Patch

There are several methods and approaches for applying patches. In this exercise, you locate and apply a single Windows patch using the BigFix Console.

Tip: Since this image set is connected to the Internet, the relevant patches that are available to be applied are constantly changing. You should attempt to locate patches for the various exercise that are relevant and with a small download size. In Exercise11: Configure Client Settings on page 58 you enabled superseded patch evaluation for both of the Windows clients, so there should be older patches that are available to deploy. You should apply these first so that you have enough relevant patches to perform the exercises.

1) Return to the BigFix **Console** on the **BESFNDWINROOT** virtual machine.

____2) Select the **Patch Management** domain in the lower-left portion of the Console. The navigation pane updates to show only the content that is associated with Patch Management.

____3) Expand the **All Patch Management** node, then select the **Computers** node. The managed computers are displayed in the List Area.

4) Select **BESFNDWIN10** in the list area. The details for the selected computer are shown in the work area below.

____5) Click the Relevant Fixlets and Tasks tab in the work area. A list of Fixlets and Tasks that are relevant to BESFNDWIN10 are displayed.

__6) Expand the **Fixlets Only > By Site > Patches for Windows** nodes. A list of patches that is associated with the Patches for Windows external site is displayed.

lit Settings 💥 Remove From Database 🔌	Send Refresh		
Summary Relevant Fixlets and Tasks (121)	Relevant Baselines (0) Baseline Component Applicability Action Histo	ory (4) User Mana	gement Rights 4
All (121)	Name	Source Severity	Site
	MS21-AUG: Servicing Stack Update for Windows 10 Version 190	Critical	Patches for Win
	5004333: Cumulative Update for .NET Framework 3.5 and 4.8 for	Unspecified	Patches for Win
	5004314: Servicing Stack Update for Windows 10 Version 1909	Unspecified	Patches for Win
	CVE-2021-36934: Security Accounts Manager (SAM) Database	Unspecified	Patches for Win
 > a patters for windows (29) > a By Source > By Source Release Date > Tasks Only (56) 	5003539: Cumulative Update for .NET Framework 3.5 and 4.8 for	Unspecified	Patches for Win
	Windows 10 Business Editions Version 21H1 Available - Window	Unspecified	Patches for Win
	4589211: Intel microcode update - Windows 10 Version 1909 - K	Unspecified	Patches for Win
	MS21-JAN: Security update for Secure Boot DBX - Windows 10	Important	Patches for Win
	Windows 10 Business Editions Version 20H2 Available - Window	Unspecified	Patches for Win
	4577586: Update for Removal of Adobe Flash Player for Window	Unspecified	Patches for Win

_7) Verify that the **Show Non-Relevant Content** button at the top of the BigFix Console is disabled.

S.

Note: When the **Show Non-Relevant Content** button is enabled it appears indented. When it is enabled all content available for the selected node is shown, whether it is Relevant to any managed endpoint. This button can be toggled to show either all content or only relevant content. The following images show the different button states.

Enabled

-	-						
File	Edit	View	Go	Tools	Help		
🛑 Ba	ck 🔻 🛛	Forwa	ard 🔻	🔷 Sho	w Hidde	Content 🌇 Show Non-Relevant Content 🛛 🧞 Refresh Co	nsol

Disabled

File Edit View Go Tools Help						
Here Back - Forward - Show Hidden Content	File	Edit	View	Go	Tools	Help

____8) Locate a Security Update or Security Advisory patch and double-click the patch name. The details for the selected patch open in the Console.

Important: Make sure that you only select Patch Fixlets and do not select any Windows 10 upgrade Fixlets.

Tip: Scroll to the right in the list area and locate the **Source Release Date** column header. Click the **Source Release Date** column header once to sort the list in ascending order. Click the **Source Release Date** column header again to reverse sort the list which places the newest Fixlets at the top. Older .NET patches are good candidates for this lab since they are small and do not include other patches.

____9) Select the **Description** tab. View the **File Size** referenced on the Description tab for the selected Fixlet.

Details Applicable Computers (1) Action History (0)	bally X Remove
cription	
	a complete listing of the issues that are included in this update for more information. After you install this item, you may have t
te: Affected computers may report back as 'Pendi port back their final status until the computer has	ng Restart' once the update has run successfully, but will not been restarted.
te: To deploy this Fixlet, ensure that Windows Up	The second se
te: This update is also referenced under KB50035	
te: This update is also referenced under KB50035 e Size: 77.0 MB	
ote: This update is also referenced under KB50035 e Size: 77.0 MB	
ote: This update is also referenced under KB50035 le Size: 77.0 MB ions Click <u>here</u> to initiate the deployment process.	39.
ote: This update is also referenced under KB50035 le Size: 77.0 MB tions Click <u>here</u> to initiate the deployment process. Click <u>here</u> to see the Knowledge Base Article for this u	39.

_10) Record the applicable **Knowledge Base number** for the patch found on the **Description** tab. You use this number in a later exercise.

___11) Click **Take Action** and select **Click here to initiate the deployment process**. The Take Action window opens. The Take Action window is displayed.

12) Click the **Post-Action** tab. Select the **Restart computer after action completes** option and then select **1 minute** from the **Set deadline** dropdown box.

_____13) Click the **Target** tab and select **BESFNDWIN10** from the list of available targets. Click **OK**. The Action pane opens.

____14) Monitor the status of the action. Wait until the status changes to **Fixed** before continuing.

____15) Switch to the **BESFNDWIN10** virtual machine. If you are logged out, log in using **tecuser** with a password of **bigfixrocks**.

____16) Begin typing **Control Panel** in the **Search** box on the Windows taskbar. Select **Control Panel** from the search results. The Control Panel window opens.

17) Click Programs -> Programs and Features -> Installed Updates.

__18) Click: **Programs -> Programs and Features -> View Installed Updates.** The Control Panel window updates to show a list of installed updates.

_19) Using the **KB** number recorded previously, verify that the update you recently installed is listed.

Control Panel Home	Uninstall an update				
Uninstall a program Turn Windows features on or	To uninstall an update, select it from the list and then o	click Uninstall or Chang	e.		
off	Organize 👻				EE -
	Name	Program	Version	Publisher	Installed Or
	Microsoft Windows (8)		Contractor	1	
	Update for Microsoft Windows (KB5003539)	Microsoft Windows		Microsoft Corporation	9/25/2023
	E Security Update for Microsoft Windows (KB5001028)	Microsoft Windows		Microsoft Corporation	3/25/2021
	📧 Security Update for Adobe Flash Player	Microsoft Windows		Microsoft Corporation	3/25/2021
	📧 Security Update for Microsoft Windows (KB4601395)	Microsoft Windows		Microsoft Corporation	3/9/2021
	📧 Feature Update to Windows 10 Version 1909 via Enabl	Microsoft Windows		Microsoft Corporation	10/6/2019
	📧 Security Update for Adobe Flash Player	Microsoft Windows		Microsoft Corporation	10/6/2019
	📧 Update for Microsoft Windows (KB4513661)	Microsoft Windows		Microsoft Corporation	10/6/2019
	📧 Security Update for Microsoft Windows (KB4521863)	Microsoft Windows		Microsoft Corporation	10/6/2019

___20) Close the **Control Panel** window.

___21) If the action has a status of **Pending Restart**, restart the **BESFNDWIN10** virtual machine.

After the virtual machine restarts, log in using **tecuser** with a password of **bigfixrocks**.

_22) Switch to the **BESFNDWINROOT** virtual machine and return to the console.

This completes the exercise.

Exercise 15: Using the Microsoft Rollback Task Wizard

In this exercise, you use the Microsoft Rollback Task wizard to create a Task to remove the patch that you applied in the previous exercise.

____1) Return to the BigFix **Console** on the **BESFNDWINROOT** virtual machine.

_2) From the navigation pane of the Patch Management domain, expand All Patch Management -> Wizards, and then select the Microsoft Rollback Task Wizard. The Microsoft Rollback Task Wizard is displayed.

__3) Enter the **Knowledge Base** number of the patch that you applied in the previous exercise and select **Windows 10 x64** for the applicable operating system.

Tip: When entering the Knowledge Base number, make sure to include **KB** before the number. For example, **KB123456** where **123456** is the Knowledge Base number.

elcome to the Micr	osoft Patch Rollback Task	Wizard for Windows.				
nis Wizard will assis	st you in rolling back Micros	oft patches on Windows co	mputers.			
	only remove patches that c			id will not remove Service	e Packs.	
als have for some in		detection and removal met	noos, and caveats dealing	with windows vista and i	later.	
ck <u>here</u> for more in	normation, including paters					
ecify the Knowled	ge Base number of the pat		28]
becify the Knowled B5003539	ge Base number of the pat					
ecify the Knowled B5003539	ge Base number of the pat					
ecify the Knowled B5003539 Hect Operating Sys Windows 98	ge Base number of the pat stem(s):	tch you want to roll back.	Uindows 7	Uindows 8	Uindows 2012 R2	Uindows 2019
ecify the Knowled B5003539 elect Operating Sys Windows 98 Windows Me	ge Base number of the par stem(s): Windows 2003 Windows 2003 x64	tch you want to roll back.	Windows 7 x64	☐ Windows 8 ☐ Windows 8 x64	Windows 10	Windows 11
lick <u>here</u> for more in <u>becify the Knowled</u> (B5003539 elect Operating Sys Windows 98 Windows Me Windows NT Windows 2000	ge Base number of the pat stem(s):	tch you want to roll back.				

_4) Click **Finish**. The Create Task window is displayed.

Tip: If you receive the following Security Warning, click Continue.

Security Warning		Х
	essage with scripting and/or relevance. nt only if you trust its origin and understand the it on your environment.	
Title: Imported by BES Operator:	Rollback Patch Task: KB some Ca	
View dynamic content	Continue	Cancel

_____5) Accept the default name for the task and click **OK**. The task opens in the Console.

Tip: If you receive the following Security Warning, select the **Always enable dynamic content** option, then click **Enable**.

Security Warning		×
This content contains a ma Do you want to enable this	essage with scripting and/or relevance. ; dynamic content?	
Title: Imported by BES Operator:	Task: Rollback Patch Task: KB5005412 adminmo nt imported by this BES Operator	
View dynamic content	Enable Disab	le

____6) Click the Applicable Computers tab and wait until BESNFDWIN10 becomes relevant before continuing.

_____7) Click **Take Action**. The Take Action window opens.

____8) Click the **Target** tab and select **BESFNDWIN10** from the list of available targets.

_9) Click the **Post Action** tab. Select the **Restart Computer after action completes** option, and then choose **1 minute** from the **Set deadline** drop-down box.

Vame:	Rollback P	atch Tas	k: KB5003539	9		Create in domain: Patch Manage			jement			
Preset:	[Cus	tom] De	fault		✓ Sho	w only persona	presets			Save Preset		
Target	Execution	Users	Messages	Offer	Post-Action	Applicability	Success Criteria	Action	Script			
OD	o nothing aft	er action	n completes									
🖲 Re	estart compu	ter after	action com	pletes								
	hutdown con	nputer a	fter action co	ompletes								
	ssage efore restarti	na show	the followin	na messa	ge to active us	ers						
	lessage Title:		start Now	ig messe	ge to active as						Ĩ	
		inc	start wow									
Message Text:			ur system ad	Iministra	tor is requestin	q that you rest	art your computer.	Please s	ave any unsa	eved work and		
		the	en take this a	ction to								
		the	en take this a	iction to	restart your co							
		the	en take this a	iction to								
Ē] Allow user			iction to								
Se] Allow user	to cance		action to	restart your co		etes					
	et deadline:	to cance	el restart ninute		from time	mputer.	etes					
		to cance	el restart ninute Restart auto	matically	from time	e action compl						
	et deadline:	to cance	el restart ninute Restart auto	matically	from time	e action compl						
	et deadline:	to cance	el restart ninute Restart auto	matically	from time	e action compl						
	et deadline:	to cance	el restart ninute Restart auto	matically	from time	e action compl						
	et deadline:	to cance	el restart ninute Restart auto	matically	from time	e action compl						
	et deadline:	to cance	el restart ninute Restart auto	matically	from time	e action compl						

_10) Click **OK**. The action starts and the Action window is displayed.

___11) Monitor the status of the action and wait for it to change to Completed before continuing. Depending on the patch that you chose to install, this could take several minutes.

_____12) Switch to the **BESFNDWIN10** virtual machine and login using **tecuser** with a password of **bigfixrocks**.

13) Begin typing Control Panel in the Search box on the Windows taskbar. Select Control Panel from the search results. The Control Panel window opens.

14) Click Programs -> Programs and Features -> Installed Updates.

____15) View any changes to the list of updates.

Note: Because of the way Microsoft bundles patches, your original KB might still be present in the list of updates or it might show up as a different KB.

___16) Close the **Control Panel** window.

____17) Switch to the **BESFNDWINROOT** virtual machine and return to the Console.

This completes the exercise.

Exercise 16: Configuring Patch Constraints

You can use Take Action parameters to control how and when a patch is installed. For example, you can use time constraints to patch Windows servers during a preset maintenance window.

In this exercise, you define various constraints for the deployment of patches.

Note: Because the Patch selected for this exercise will not actually be applied please choose a patch that is relevant to BESFNDWINROOT.

1) Expand the **OS Vendors -> Microsoft Windows** nodes and then select the **Microsoft OS and Application Patches** node in the Patch Management domain. The list of relevant patch Fixlets are shown in the list area.

_____2) Select **any relevant patch** from the list. The details for the select patch are shown in the work area below.

_____3) Click **Take Action** and select **Click here to initiate the deployment process**. The Take Action window opens.

____4) Select the **Execution** tab and set the execution parameters as follows:

____a) Clear the **Ends on** option in the **Constraints** section.

____b) Select the **Run between** option and accept the default times in the **Constraints** section.

_____c) Select the **Run only on** option and make sure that only **Sat** is selected. Clear any other day of the week that might be selected.

	[Ci	ustom] De	fault	Show only personal presets								Save Preset			
et 🔽	Execution	Users	Messages	Offer	Post	-Action	App	licability	Succes	s Criteria	Action	Script	840 		
	raints						L							1	
S	tarts on	4		9/25/	/2023		at	11:51:57	AM	‡ cl	ent local	time	~		
<u> </u>	nds on			9/27,	/2023	-	at	11:51:57	AM	÷ c	ient loca	l time			
✓ R	lun betwe	en		1:00:	00 AM	-	and	2:59:00	AM	¢	ient loca	l time			
⊡ R	lun only o	on		Sun	Mon	Tue	Wed	Thu	Fri	Sat c	ient loca	l time			
R	un only v	when		BESC	Client_[Downlo	ad_N	~ ma	tches	~					
ehav	vior														
	On <mark>failu</mark> re	, retry		3	*	times									
	۲	Wait		1 hour		~ ł	oetwee	n attemp	ts						
			il computer h	as reboo	ted										
<u> </u>	leapply th	nis action													
			r it becomes		again			1							
			evant, waiting					1	minute	s V	betw	een reappli	ations		
		Limit to	3	÷	reappli	cations									
∠ S	tart clien	t downloa	ids before con	nstraints	are sat	isfied									
S	tagger ad	tion dow	nloads over		5			minutes t	o reduce	network	load				

Tip: When choosing the **Start client download before constraints are satisfied** option, you might need to increase the size of the endpoint cache using one or more of the following client settings:

_BESClient_Download_PreCacheStageDiskLimitMB

_BESClient_Download_PreCacheStageContinueWhenDiskLimited

_BESClient_Download_NormalStageDiskLimitMB

_____5) Click the Users tab. Verify that Run independently of user presence, and display the user interface to the selected users option is selected.

6) Click the **Messages** tab. Define the message settings as follows:

____a) Select the **Display message before running action** option.

____b) Enter Required patch must be installed in the Description field

_____c) Select **15 minutes** from the **Set deadline** dropdown box.

_____d) Verify that **At deadline** option is set to **Run action automatically**.

____e) Select the **Display message while running action** option.

ame:	: for Windows Serve	er 2016 - Windows Server 2016 - KB5012170 (x64) Create in domain: Patch Mana	igement
eset:	[Custom] De	fault V Show only personal presets	Save Preset
Target	Execution Users	Messages Offer Post-Action Applicability Success Criteria Action Script	
Di	isplay message befor	e running action	
Ti	tle:	MS22-AUG: Security Update for Windows Server 2016 - Windows Server 2016 - KB501217	0 (x64)
D	escription:	Required patch must be installed	5
-	•		
L	Ask user to save we		
L	Allow user to view		
Se	t deadline:	15 minutes ✓ from time action is relevant	
A	t deadline:	Run action automatically	
Г	Channe and Samuelian	 Keep message topmost until user accepts action message before running action: 	
۱L.		message before running action:	
⊘ pi	isplay message while	running action:	
Ti	tle:	MS22-AUG: Security Update for Windows Server 2016 - Windows Server 2016 - KB501217	0 (x64)
D	escription:	Required patch is being installed	
	100.00		
		ed on the "Users" tab that this action should run independently of user presence. If no user	is present,
<u> </u>	the message will	not be displayed.	

____f) Enter Required patch is being installed in the Description field

____7) Click the **Post Action** tab. Define the Post Action settings as follows:

- ____a) Select the Restart computer after action completes option
- ____b) Select the Allow user to cancel restart option
- ____c) Choose **1** day from the **Set deadline** dropdown box.

1	s Server 2016 - Windows Se			Create in u	ornani.	Patch Mana	gement		_
eset: [Custor	m] Default	~ Show	only personal pr	esets			Save	Preset	
arget Execution U	Jsers Messages Offer	Post-Action	Applicability S	uccess Criteria	Action	Script			
O Do nothing after	action completes								
Restart computer	r after action completes								
A CONTRACTOR OF	uter after action complete	5							
Message Before restarting,	, show the following messa	ige to active use	rs:						
Message Title:	Restart Now	-							
							aved work and	1	
Message Text:	Your system administra then take this action to			our computer.	Please	ave any unsa		12 I.	
Message Text:	Your system administra then take this action to			our computer.	Please	ave any unsa	aved work and	₩ 2	
Message Text:				our computer.	Please	ave any unsa		•	
Message Text:	then take this action to			our computer,	Please :	ave any uns			
	then take this action to	restart your com			Please :	ave any unsa			
Allow user to Set deadline:	then take this action to cancel restart	from time	nputer.		Please :	ave any unsa			
Allow user to	then take this action to cancel restart 1 day Restart automatically	from time	action completes		Please :	ave any unsa			
Allow user to Set deadline:	then take this action to cancel restart	from time	action completes		Please :	ave any uns			
Allow user to Set deadline:	then take this action to cancel restart 1 day Restart automatically	from time	action completes		Please :	ave any unsa			
Allow user to Set deadline:	then take this action to cancel restart 1 day Restart automatically	from time	action completes		Please :	ave any uns			

_d) Confirm that the **At deadline** option is set to **Restart automatically**.

___8) Optionally, review the other tabs but do not change any other settings.

___9) Click Save Preset in the upper-right portion of the Take Action window. The Save Action Preset window opens.

___10) Enter Windows Server Maintenance Window for the New Preset Name and select the Make this preset available to all operators option

____11) Click Save.

Note: You can now use this preset to automatically set the action parameters when you take action on other Fixlets and tasks.

12) Click the Target tab. Select the Dynamically target by property option and select All Computers.

____13) Click **OK** to initiate the action. The Action pane opens.

__14) Monitor the status of the action. The action status changes to **Waiting** after the downloads complete. This might take some time, so you can continue to the next exercise and return later to confirm the status of this action.

Note: The action remains in **Waiting** status and is not started on the relevant endpoints until all the constraints are satisfied.

This completes the exercise.

Exercise 17: Creating Patch Offers

You can make the installation of certain patches optional to end users by configuring and distributing them as offers.

In this exercise, you first deploy the BigFix Self Service Application and then configure a patch as an offer and deploy it to target systems.

- _____1) Select the **All Content** domain in the lower-left portion of the Console. The navigation pane updates to show All Content.
- _____2) Select the **Fixlets and Tasks** node in the **navigation pane**. The list area updates to show a list of Fixlets and Tasks.
- _____3) Enter the string **self** in the live search field in the upper-right portion of the **Console**. The list of Fixlets and Tasks is filtered to show only those that contain the string that you entered.
- _____4) Select the **Deploy the latest version of BigFix Self-Service Application (Windows)** task in the list area. The details for the selected task are shown in the work area below.

_____5) Click **Take Action**. The Take Action window is displayed.

_____6) Click the **Target** tab and select both **BESFNDWIN10** and **BESFNDWINROOT** from the list of available targets.

_____7) Click **OK** to initiate the action.

8) Monitor the status of the action and wait for it to change to **Completed** before continuing.

9) Select the **All Content** domain in the lower-left portion of the **Console**. The navigation pane updates to show All Content.

____10) Click the **Computers** node in the **navigation pane**. The list pane updates to show the list of managed computers.

_____11) Select **BESFNDWIN10** in the **list area**. The details for the selected computer are shown in the work area below.

__12) Select the **Relevant Fixlets and Tasks** tab in the **work area**. A list of all Fixlets and Tasks that are relevant to the BESFNDWIN10 computer is displayed in the work area.

13) On the Relevant Fixlets and Tasks tab, expand the Fixlets Only -> By Site nodes then select the Patches for Windows node. The display updates to show only the Fixlets and Tasks that are in the Patches for Windows site that are relevant to the BESFNDWIN10 computer. _14) **Double-click** any Fixlet in the list that is **not** an **upgrade** Fixlet. The selected Fixlet opens in the Console.

Tip: Select the same patch that you rolled back in Exercise 15: Using the Microsoft Rollback Task Wizard if is relevant.

All Content	Computer: BESFNDCEN	TOS				Se	arch Computer: BES	FNDCENTOS	2
	Computer Name BESENDCENTOS BESENDWINTO BESENDWINROOT	OS Linux CentOS Win10 10.0.18 Win2016 10.0	CPU 2400 MHz Xeon 2400 MHz Xeon 2400 MHz Xeon	Last Report Ti 9/25/2023 12:0 9/25/2023 12:0 9/25/2023 12:0	Locked No No No	BES Relay Sele Manual Manual Manual	Relay besfndwinroot besfndwinroot BES Root Server	User Name <none> tecuser Administrator</none>	RAM 1824 N 2048 N 8192 N
> Image: Computers (3) > Image: Computer Groups (3) Image: Assets (0) > Image: Computer Groups (3) Image: Computer	principal de la constante de la	ixlets and Tasks (1 3) Severity pport (34)	9) Relevant Basel Name Enable hardenir Windows 10 Bu MS21-AUG: Sen	ng changes for Win siness Editions Vers vicing Stack Update	VerifyTrust Sign ion 21H2 Availa e for Windows 1	plicability Action Hist ature Validation Vulner ble - Windows 10 (x64) 0 Version 1909 - Windo 3.5 and 4.8 for Window	ability (CVE-2013 (English (United S ws 10 Version 190	Source Severity Important Unspecified Critical	R + Pat Pat Pat Pat Pat
All Content BigFix Management Patch Management Systems Lifecycle	> 🗃 By Catego > 🚔 By Source	Release Date	5004314: Servici CVE-2021-36934 5003539: Cumu Windows 10 Bu 4589211: Intel m MS21-JAN: Sect	ng Stack Update fo 4: Security Account lative Update for .N siness Editions Vers nicrocode update - urity update for Sec	r Windows 10 V s Manager (SAP IET Framework ion 21H1 Availa Windows 10 Ve ure Boot DBX -	ersion 1909 - Windows I A) Database Windows I 3.5 and 4.8 for Window ble - Windows 10 (x64) rsion 1909 - KB4589211 Windows 10 Version 15 ble - Windows 10 (x64)	10 Version 1909 Elevation of Privile s 10 Version 1909 f (English (United S (x64) (V2.0) 09 - KB4535680 (x	Unspecified Unspecified Unspecified Unspecified Unspecified Important	Pat Pat Pat Pat Pat Pat Pat Pat

_15) Click **Take Action** and select **Click here to initiate the deployment process.** The Take Action window opens.

_16) Click the **Execution** tab and verify that the **Ends on** option is set for two days from the current date (default setting).

_17) Click the **Messages** tab. Perform the following steps to set the Message settings:

__a) Select Display message before running action and enter A critical update must be installed. A reboot of your workstation is required in the Description field.

__b) Set the **Deadline** to **1 Day** and select **Keep message topmost until user accepts action** for the **At deadline** option.

____c) Select **Display message while running action** and enter **A critical update is being installed** in the **Description** field.

et: [Custom	n] Default v Show only personal presets	Save Preset
rget Execution Us	ers Messages Offer Post-Action Applicability Success Criteria Action Script	
🛛 Display message b	before running action	
Title:	5003539: Cumulative Update for .NET Framework 3.5 and 4.8 for Windows 10 Version 1909	for x64 - Winde
Description:	A critical update must be installed. A reboot of your workstation is required	
— • • • •		
Ask user to sav	ve work view action script	
Allow user to a		
Set deadline:	I day from time action is relevant	
	O 9/26/2023 ■ at 12:12:41 PM + client local time	
A. J		
At deadline:	Run action automatically	
	Keep message topmost until user accepts action	
Show confirm	ation message before running action:	
Show confirm	ation message before running action:	2
Show confirm	ation message before running action:	
	ation message before running action:	
		for x64 - Winde
Display message v	vhile running action:	for x64 - Winde
Display message v Title:	vhile running action: 5003539: Cumulative Update for .NET Framework 3.5 and 4.8 for Windows 10 Version 1909	for x64 - Winde

18)	Click the	Offer	tab.	Select	Make	this	action	an	offer	
-----	-----------	-------	------	--------	------	------	--------	----	-------	--

P Take Action	- 0	×
Name: ndows 10 Version 1909NET Framework 3.5/4.8 - KB5003539 (x64) Create in domain: All Conten		~
Preset: [Custom] Default ~ Show only personal presets	Save Preset	
Target Execution Users Messages Offer Post-Action Applicability Success Criteria Action Script		
An action that is made into an 'Offer' becomes available in the list of offers in the client UI on applicable machines. the list of available offers and apply those that they are interested in. Offers will only be visible to users selected on t machines where the client Offer UI is enabled.		
Notify users of offer availability 5003539: Cumulative Update for .NET Framework 3.5 and 4.8 for Windows 10 Version 1909 for	4 - Windows 10 V	
Category:		
✓ ▲, B I U 目 日 目 目 ■ ■ ■ ● / / Ⅱ		
5003539: Cumulative Update for .NET Framework 3.5 and for Windows 10 Version 1909 for x64 - Windows 10 Version 1909NET Framework 3.5/4.8 - KB5003539 (x64)		
Description		
Click here to accept this offer.	~	
OK Cancel		

- __19) Select the **Post Action** tab. Perform the following steps to set the Post Action settings:
- ____a) Select Restart computer after action completes.
- ____b) Select Allow user to cancel restart.
- ____c) Set the deadline to **5 minutes**.
- _____d) Select Keep user interface topmost until user accepts restart for the At deadline option.

	ndows 10	ersion 1	909NET F	ramewo	rk 3.5/4.8 - KB50	003539 (x64)	Create in d	omain:	All Content	2	
reset:	[Cust	om] Def	fault		✓ Show	v only person	al presets			Save P	reset
Target	Execution	Users	Messages	Offer	Post-Action	Applicability	Success Criteria	Action	Script		
⊖ Do	nothing aft	er action	i completes								
Res	start compu	er after	action com	oletes							
		puter af	ter action co	ompletes							
Mess	S	a show	the followir	n messa	ge to active use	-					
	essage Title:	 	tart Now	ig messa	ge to active use	-12-					Ĩ
	stoge miler	nes	atant NOW								
Me	essage Text:						art your computer.	Pleases	ave any unsa	wed work and	
		the	n take this a	ction to	restart your cor	nputer.					
	Allow user	to cance	l restart								
Set	deadline:	5.00	ninutes				14.010				
	acconner	101	indles		rrom time	action comp	etes				
At	deadline:	0	Restart autor	matically							
		() H	Keep user in	terface to	opmost until us	er accepts res	tart				
							and the				

- ____20) Review the remaining tabs, but do not change anything on them.
- _____21) Click the **Target** tab and select **BESFNDWIN10** from the list of available targets.
- _____22) Click **OK** to initiate the action.

23) Monitor the status of the action. Wait until the status is **Pending Offer Acceptance** before continuing.

24) Switch to the BESFNDWIN10	virtual machine	. If you are log	gged off, log on a	s tecuser with a p	assword
of bigfixrocks .					

_25) Click the BigFix Self Service App interface icon in the Windows taskbar in the lower-right portion of the desktop



The BigFix Self Service Application window opens.

				Catal	og - BigFix Self-Service Applicatio	n	- 🗆 ×
Catalog	Histor	Y					
Item 1						Search	Q
Туре		Status		Category		Sort by	
All	~	All	~	All	~	Newest 🗸	
	NET						

__26) Select the icon for the deployed patch offer. A new frame opens on the right side of the **Self Service Application** page. Click **GET**.



Status messages in the Self Service Application are updated as the action proceeds. The messages that you defined on the Messages tab of the Take Action window are also displayed as the action runs. When the action completes, the Restart Now window opens because of the settings that you created in the Post Action tab of the Take Action window.

	Sep 25, 2023, 12:18:37 PM 5003539: Cumulative Update for .NET Framew Required Reguired No category	<
	26, 2023, 12:23:44 PM nistrator is requesting that you restart your compute nsaved work and then take this action to restart you	
Decline	Restart Now	

- 27) Click **Restart Now**. The BESFNDWIN10 virtual machine reboots.
- _____28) Log in to the **BESFNDWIN10** virtual machine as **tecuser** with a password of **bigfixrocks**.
- _____29) Switch to the **BESFNDWINROOT** virtual machine and return to the console.
- _____30) Monitor the status of the Patch action. Wait until the status changes from **Pending Restart** to **Fixed** before continuing.
- _____31) Switch to the **BESFNDWIN10** virtual machine.
 - ___32) Click the **BigFix Self Service Application** icon in the Windows taskbar in the lower-right portion of the desktop. The BigFix Self Service Application opens.

_33) Validate that the patch offer now shows **Completed**.

			Catalo	g - BigFix Self-Service Application		- 0
Catalog Histo	ry					
tem 1					Search	Q
уре	Status		Category		Sort by	
Ali 🗸	All	~	All	~	Newest	✓ III III
© Completed	e					

This completes the exercise.

Exercise 18: Creating Baselines

A **baseline** is a container of multiple Fixlets and Tasks that you plan to deploy using a single action. They provide a reusable common base for all targeted computers. Within the baseline, you can specify the order that the various components are installed so that any patch dependencies are applied before their dependent patches. If one or more of the patches requires a restart, you can set a baseline action to restart after all patches are installed. Baselines provide a method for moving tested content to production. It is suggested that you create custom sites to house the baselines that you create.

In this exercise, you create a baseline for applying Windows patches. You also create a custom site where the baseline is stored.

Important: Creating baselines as a master operator can negatively affect system performance because by default they are created in the Master Action Site. Since all computers are automatically subscribed to the Master Action Site it is important to keep it as small as possible. In a production environment, you should create and take action on baselines as a non-master operator. The impact to this lab environment is minimal. Therefore, you use the master operator account. The Fixlets and Tasks that are included as components in baselines are copies of the originals and not pointers. Therefore, the content in a baseline is static and does not get updated as new versions of the Fixlets are updated or marked as superseded. If you created the Baseline days, or weeks ago, it is likely that the content in the baseline is out of date and needs to be synchronized.

1) Switch to the **BESFNDWINROOT** virtual machine and return to the **Console**.

2) From the **Console** menu, click **Tools > Create Custom Site**. The Create Custom Site window is displayed.

_____3) Enter **Windows Baselines** for the name and click **OK**. The Custom Site: Windows Baselines pane is displayed.

_4) Click the **Computer Subscriptions** tab and select the **Computers which match the condition below** option. Set the filters to **OS contains Win**

ustom Sit	te: Windows Baselines				Ľ
Save C	Changes Discard Changes	Gather Add Files	Remove		
Details	Computer Subscriptions	Operator Permissions	Role Permissions		
The fo	llowing computers will be	subscribed to this site:			
	computers				
⊖ No	computers				
OCor	mputers subscribed via ad-	hoc custom site subscr	iption actions		
Cor	mputers which match the	condition below			
0	S	✓ contains	; ~ W	/in	- +

_5) Select the **Operators Permissions** tab.

_6) Select testuser and click Writer in the permission section. Click Save Changes.

Custom Site: Windows Baselines				
Save Changes Discard Changes Gather Add Files 🗙 Remo	ve			
Details Computer Subscriptions Operator Permissions Role P	ermissions			
Custom site owners are allowed to grant other operators read or custom site.	write permission. Writers are allowed to create new	content in the site. Reader	s are allowed to view and	apply content in a
Grant read permission globally	Permission	n: Owner Wi	riter Reader	None
Name Last L	ogin Time Operator Type	LDAP Server Exp	•	ective Permissions
adminmo 12/20,	/2021 12:04:54 PM Local	Nor	ne Ow	ner (MO)
testuser 12/17/	/2021 2:48:26 PM Local	Writ	ter Wri	ter

____7) From the BigFix Console menu, select Tools -> Create New Baseline. The Create Baseline window opens.

___8) Enter Latest Windows Patches in the Name field and enter Windows patches as of today in the Description field. Replace today with the current date.

___9) Select Windows Baselines from the Create in site drop-down box in the upper-right portion of the Create Baseline window.

____10) Click the **Components** tab.

_____11) Click the edit name link next to Component Group 1.

_____12) Rename the current component group to **Windows Patches** and click **Save Group Name**.

____13) Click the **[add components to group]** link under **Windows Patches**. The Add Baseline Components window opens.

_14) Expand **All Relevant Fixlet Messages > By Source > Microsoft > By Category** nodes on the left side of the **Add Baseline Components** window then select the **Security Update** node. A list of security updates is displayed.

____15) Scroll to the right in the Add Baseline Components window and locate the Source Release Date column. Click and drag the Source Release Date column so that it is now located to the right of the Site column.

Tip: You can click the **Source Release Date** column header as needed to reverse sort the applicable Fixlets by date so that the newest are at the top.

_16) While pressing the **Ctrl** key, select 2 or 3 recent patch Fixlets making sure that at least one of them is Relevant to Windows 10 system.

The **Components** tab of the new baseline shows the selected patches.

ne:	Latest Windows Patches	Create in site:	Windows Baseline	s		~	
	Cri	ate in domain:	All Content			~	
scriptio	n Components Relevance Properties						
Win	dows Patches [edit name]						
	MS22-MAY: Servicing Stack Update for Windows Server						
	2016 - Windows Server 2016 - KB5014026 (x64) (Superseded) [go to source]	Action1	~	8	J		
Þ	MS22-JUN: Cumulative Update for Windows Server 2016 - Windows Server 2016 - KB5014702 (x64) (Superseded) [go to source]	Action1	~	8	Ĵ	« »	
Þ	MS21-AUG: Servicing Stack Update for Windows 10 Version 1909 - Windows 10 Version 1909 - KB5005412 (x64) [go to source]	Action1 (E	Default) 🗸 🗸	0			
[ad	d components to group]						
[ad	d new component group]						
Find.	Sync All Components		3 compo	nents in	baselin	ie	

_17) Verify that there is an **Action** selected for is selected for each of the components that were added to the baseline.

Tip: Superseded patch Fixlets are not evaluated by default on any Windows system. If you want to enable Superseded Fixlet evaluation, you must set the following client setting on any system that requires superseded Fixlet evaluation. This setting was already defined during Exercise11: Configure Client Settings on page 58.

Setting Name: _BESClient_WindowsOS_EnableSupersededEval

Setting Value: 1

Superseded Fixlets do not contain a default action, so an action must be explicitly chosen for each superseded Fixlet that is included in the Baseline or a Warning message is displayed at the top of the Components window.

You can use the arrow along the right-side of the Component window to change the order of the Fixlets in the Baseline. Each component is applied in the order that it appears in the Baseline. If using multiple component groups, the outside set of arrows allow you to move Fixlets between component groups.

_18) Click **OK.** The Latest Windows Patches Baseline is created and displayed in the Console.

_19) Click the **Description** tab and review the baseline information.

_20) Click the **Applicable Computers** tab. If the **BESFNDWIN10** system is not in the list, wait a few minutes for the Baseline Relevance to evaluate.

Tip: If BESFNDWIN10 never shows in the Applicable Computers tab, verify that the computer subscriptions for the custom site that you created in Step 1- 4 were assigned correctly and that you actually created the Baseline in the custom site.

_21) Click Take Action to deploy the baseline. The Take Multiple Actions window opens.

_22) Click the **Execution** tab. Verify that the following options are selected in the **Behavior** section:

- Select **On failure, retry**
- Select the Wait until computer has rebooted option
- Select Reapply this action
- Verify that the whenever it becomes relevant again option is selected.
- Verify that the Limit to option is selected and set to 3 reapplications
- Verify that Run all member actions of action group regardless of errors is selected.

reset:	[Custom] Default	✓ □ Sho	ow only personal presets	1	Save Prese
Target		Offer Post-Action	Pre-Execution Action Script	Post-Execution Action So	ript Applicabili
	nstraints Starts on	9/25/2023	at 12:40:00 PM 🛟	client local time	~
	Ends on	9/27/2023	at 12:40:00 PM	client local time	1
	 An and a state of the state of				
] Run between	1:00:00 AM	and 2:59:00 AM	client local time	
] Run only on	Sun Mon Tue	Wed Thu Fri Sat	client local time	
] Run only when	_BESClient_Downlo	ad_N ~ matches	~	
	Wait until computer h Reapply this action whenever it becomes	relevant again			
	 while relevant, waiting Limit to 	reapplications	15 minutes	 between reapplication 	ons
E	Start client downloads before co				
] Stagger action start times over	5	minutes to reduce netwo	ork load	
	-	a group regardless of e	rrors		
E	Run all member actions of action	i group regulatess of e			

____23) Click the **Post-Action** tab and set the following options:

• Restart computer after action group completes

- Set deadline: 1 minute
- At deadline: Restart automatically

_____24) Click the **Target** tab and select **BESFNDWIN10** from the list of available targets.

_____25) Click **OK.** The Action pane is displayed.

____26) Monitor the status of the baseline action. Wait until the status of the action changes to **Pending Restart** before continuing.

_____27) Switch to the **BESFNDWIN10** virtual machine and verify that it is restarting.

_____28) After the **BESFNDWIN10** virtual machine restarts, log in as **tecuser** with a password of **bigfixrocks**.

____29) Switch to the **BESFNDWINROOT** virtual machine and return to the console. Continue to monitor the status of the Baseline action and wait until it changes to **Completed** before continuing.

This completes the exercise.

Exercise 19: Applying a Windows Patch with WebUI

There are several methods and paths for applying a patch. In this exercise, you locate an apply a patch using the WebUI.

1) Verify that the following virtual machines are started:

- BigFix Server: BESFNDWINROOT
- BigFix Windows Client: **BESFNDWIN10**
- BigFix Linux Client: **BESFNDCENTOS**
- _____2) Switch to the **BESFNDWINROOT** virtual machine. If you are logged off, log in to the server as **adminmo** with a password of **bigfixrocks**.

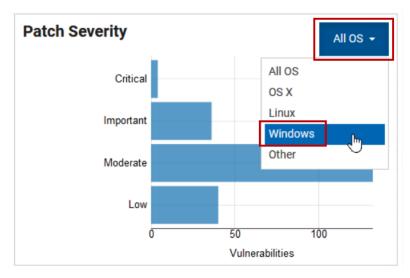
_____3) Double-click the **Firefox** icon on the **Windows Desktop** and enter the following URL in the address field:

https://BESFNDWINROOT

The BigFix WebUI login page opens.

_____4) Enter **adminmo** as the username and **B1gfixrocks** as the password. Click **Login.** The WebUI Overview page opens.

_5) Select **Windows** from the drop-down box in the upper-right portion of the **Patch Severity** widget.



The Patch Severity widget is filtered to show only the Windows patches.

_6) Click any **bar** representing a severity of Relevant patches in the **Patch Severity** widget. A list of patches that match the severity of the bar that was selected opens.

_7) Enter **Win10** in the search field for the **Software** column. The list of Relevant patches is filtered to show only those that are applicable to the Windows 10 endpoints.

BIGFIX Devices Apps ~ D	eployments Reports					ං ~
Select a favorite report	✓ Save Report				Export S	Show Summary
3 patches 🏹 🗳			V	/iew: 20 🔻 <	(1 ▼ >	1 of 1 pages
Patch Name ↑	Site Name	Severity	Software	CVE IDs	Category	Release Da
Type for search	▼	1 ×	Win1þ ×	Type for sea	•	mm/dd/y.
3125869: Vulnerability in Internet Ex	atches for Windows	Important	WinVista, Win2008, Wi [9]	CVE-2015-6161	Workaround	Dec 1
MS21-JAN: Security update for Secur	atches for Windows	Important	Win10	CVE-2020-0689	Security Update	Jan 1
MS22-JAN: Cumulative Update for .N	atches for Windows	Important	Win10	CVE-2022-21911	Security Update	Jan 1

____8) Click the **link** in the **Patch Name** field for the patch that you want to deploy. The Overview page for the select patch opens.

9) Review the description for the patch on the **Overview** page.

____10) Click the **Relevant Devices** tab and verify that **BESFNDWIN10** is in the list of Relevant computers.

AS22-MAY: Cumula	ative I Indate	for NET Frame	work 3 5 and	4.8 for W	/indows 10
/ersion 1909 - Wind	The second s				
x64)		SIGHT 1909 .INC	THUITEWOIK	0.0/ 4.0	100010027
X04)					_
					Deploy Patch
Overview Relevant Devices	Deployments				
				ID	501362701
Select a favorite report 🔹				Severity	Important
				01/15 10-	OVE 0000 00100
1 device	Ē	View: 20 🔹 < 1	 1 of 1 pages 	CVE IDs Category	CVE-2022-30130 Security Update
	-		^		Security Update Patches for
1 device	-	? View: 20 ▼ < 1 pplica ↓ Deployment	^	Category	Security Update
Computer Name 1	-		^	Category Site	Security Update Patches for Windows
	Critical Patches A		^	Category Site Source	Security Update Patches for Windows Microsoft

___11) Click **Deploy Patch**. The Deploy Patch page opens.

___12) Click **Next**. The Select Targets tab opens on the Deploy Patch page.

Tip: If a patch contains more than one Action, you must first select desired Action before the **Next** button becomes active allowing you to advance to the Select Targets page.

__13) Place a check beside the **BESFNDWIN10** computer is the list of available targets then click **Next**. The Configure tab opens on the Deploy Patch page.

____14) Review the options on the **Configure** page but do not make any changes.

___15) Click **Deploy** on the right-side of the Deploy Patch page to initiate the action. The deployment page opens for the action.

____16) Click the **Device Results** tab and monitor the status of the action. Wait until the status is **Fixed** or **Pending Restart** before continuing. You can periodically **Refresh** the WebUI browser to update the view.

BigFix	Devices	Apps -	Deployments	Reports			\$ -
IS22-MAY	: Cumula	ative Up	date for .NE	T Framework 3.	5 and 4.8 for Windows	10 Version 1909 - \	Vindows 10 Vers
Overview Dev	ice Results						
Result					Q Search	Stop	Deployment
					Status: All - Sort by: Status -	View: 20 - 1/1 ()	
Device Name			L	ast Seen	Status	Behavi	or
BESFNDWIN	0		a	few seconds ago	Pending Restart	Туре	Patch Single
			First	Previous <mark>1</mark> Next Last		Start	Deployment Immediately

___17) If the action has a status of **Pending Restart**, switch to the **BESFNDWIN10** virtual machine and restart it. After the **BESFNDWIN10** virtual machine restarts, login as **tecuser** with a password of **bigfixrocks**.

_18) Switch to the **BESFNDWINROOT** virtual machine and return to the **WebUI**.

This completes the exercise.

Exercise 20: Creating patch offers using WebUI

You can make the installation of certain patches optional to end users by configuring and distributing them as offers.

In this exercise, you use the WebUI to deploy a patch as an offer.

____1) Switch to the **BESFNDWINROOT** virtual machine and return to the WebUI. If the WebUI session has timed out, login as **adminmo** with a password of **B1gfixrocks**.

____2) Click the **Devices** in the upper-left portion of the WebUI. A list of managed computers is displayed.

_____3) Click the **BESFNDWIN10** link. The details for BESFNDWIN10 are displayed.

BigFix Devices	Ар	ps Y Deployments	Reports						ა ი
Devices sele	ct a favo	rite report 🛛 👻	Save Report					Export St	iow Summary
3 devices						Ē	View: 20 -	(1 • > ·	l of 1 pages
Computer Name	٦.	Critical Patches	Applica ↓	Dep	loyments	Device Type	OS	Groups	IP Add
Type for search		•				•	•	•	
BESFNDCENTOS	٥	No	45	5	0	Server	CentOS 7	Linux Group	10.0.0.3,
BESFNDWINROOT	٥	Yes	3	3	9	Server	Windows Server 2	Windows Group	10.0.0.1
BESFNDWIN10	ø	No	2	7	9	Server	Windows 10	Lab Manual Grou	ıp, 10.0.0.2

4) Select the **Patches** tab at the top of the **BESFNDWIN10** Overview page.

BigFix	Devices	Apps ~	Deployments	Reports				• •	Ś
BES	NDW	/IN10	O						
Device Inform	nation	Custom	Deployments	Patches Software					
26 patches	₹ ∞			View: 20 🔻	< 1 ->	1 of 2 pages	G - 8 -	ع -	23
Patch	n Name 📍			Relevan ↑↓	Open A ↑	ID ^			
Тур	pe for search.						✓ Activities		
Set u	p Network Sh	are for Office	365 - Office 2013	2	0	365015	0 Critical Vulnerabili	ties	
	n Natural Ch	ora for Office	245 Office 2016	2	0	265062	0 Failed Deployment	S	

A list of patches that are relevant to the BESFNDWIN10 computer are displayed.

_5) Scroll to the right and select **Patches for Windows** from the **Site Name** column.

25 p	atches 🌾 💋	View:	20 🔻	<	1 •	>	1 of 2 pages
	Patch Name 1	ID	Site I	Name			Severity
	Type for search		1	×			•
	Set up Network Share for Office 365 - Office 2013	365015		Patch	ne <mark>s f</mark> or C	centOS	7 Plugin R2
	Set up Network Share for Office 365 - Office 2016	365063		Patch	nes for F	RHEL 7	0
	Set up Network Share for Office 2016 - Office 2016	365115	~	Patch	nes for V	Vindov	vs
	Set up Network Share for Office 2019 - Office 2019	465115		Upda	tes for V	Vindov	vs Applications
1 1	0105060, Mulaceability, in Internet Fundamer and I land to A	1510461		<i>.</i> .	Mindau		Important

The list of relevant patches is filtered to show only those from the Patches for Windows external site.

___6) Click the link in the Patch Name field for the Security Update or Security Advisory patch that you want to deploy. The Overview page for the select patch opens.

- _____7) Review the description for the patch on the **Overview** page.
- 8) Click the **Relevant Devices** tab and verify that **BESFNDWIN10** is in the list of Relevant computers.
- _____9) Click **Deploy Patch**.

BigFix Devices Apps ~ De	ployments Reports		پ م
CVE-2021-36934: Sec Elevation of Privilege	curity Accounts Manager (SAM) Databa Vulnerability	se Wind	Deploy Patch
Overview Relevant Devices De	eployments	ID	202136934
1 relevant device reported		Severity CVE IDs	Unspecified CVE-2021-36934
	An elevation of privilege vulnerability exists because of overly permissive Access Control Lists (ACLs) on multiple system files,	Category	Security Advisory
0 open deployments	including the Security Accounts Manager (SAM) database. An attacker who successfully exploited this vulnerability could run arbitrary code with SYSTEM privileges. An attacker could then install programs; view,	Site	Patches for Windows
0 deployments with > 10% failed	with SYSTEM privileges. An attacker could then install programs; view, change, or delete data; or create new accounts with full user rights.	Source	Microsoft
0 deployments in the last 24	An attacker must have the ability to execute code on a victim system	Source ID	CVE-2021-36934
hours	to exploit this vulnerability.	Size	0.00 B
		Released	27 Jul 2021
		Modified	30 Jul 2021

The Deploy Patch page opens.

_10) Click **Next**. The Select Targets tab opens on the Deploy Patch page.

Tip: If a patch contains more than one Action, you must first select desired Action before the **Next** button becomes active allowing you to advance to the Select Targets page.

___11) Place a check beside the **BESFNDWIN10** computer is the list of available targets then click **Next**. The Configure tab opens on the Deploy Patch page.

_12) Select the **No end date** option for the **Run** settings on the **Configure** page.

13) Select **Offer** on the left side of the **Configure** page. The offer setting page opens.

_14) Set the following options on the **Offer** settings page:

- Select the Send this as an offer option.
- Enter This is an optional Patch in the section. Offer Description
- Select the Notify users of offer availability option.

Select patch	Select action Select targets Configure	Deployment Summary
A second and		Deployment Name *
Run 📝	Offer	CVE-2021-36934: Security Accou
Users 🥒	Send this as an offer ⑦ Offer Description	→ 1 Patch 🗹
Messages 💉	$ B I \underline{\forall} \ \textcircled{e} \ \textcircled{e} \ X^2 X_2 \ \underline{A} \ \underline{\Box} \ \exists \equiv \ \cancel{e}^2 \ - \ \blacksquare \ \cancel{e}^3 \ \cancel{\phi} $	✓ 1 Target
Offer 🧪	This is an optional Patch	
Post-Action 📝		Configure
Applicability 🥜		V Run
Success Crit 📝		V Users

_15) Click **Deploy**. The deployment page opens for the action.

_16) Monitor the status of the action. Wait until the status is **Pending Offer** before continuing. You can periodically refresh the browser page to see the most current action status.

VE-202	1-36934 [,] Sec	curity Account	ts Manager (SA	M) Database \	Nindows Flev:	ation of Privil	eae Vuln	erability
	Device Results		is manager (on	W) Database (MINUOWS LICK		cyc vun	crability
Deploym	ent Status						Stop Dep Behavior	loyment
Pendi	ng Offer						Туре	Patch Single Deployment
	0%	20%	40%	60%	80%	100%	End	Immediately None Client Time

_17) Switch to the **BESFNDWIN10** virtual machine. If you are logged off, log on as **tecuser** with a password of **bigfixrocks**.

_18) Click the **BigFix Self Service App** icon in the Windows taskbar. The Self-Service Application opens.



_19) Select the **New** patch offer. The window will open from the side and click **GET**.

		Catal	log - BigFix Self-Service Application		- 🗆 X
Catalog History	/				
Items 2				Search	Q
Туре	Status	Category		Sort by	
All 🗸	All	× All	~	Newest 🗸	
CVE-2021-36934:	⊘ Comp 5003539: Cu	pleted			
Security Accounts	Update for .N	NET			
Security Advisory	No category				

The deployment status in the BigFix Self Service Application updates as the action runs. If you have selected a patch that requires a reboot click **Restart Now** or manually restart the BESFNDWIN10 virtual machine.

If a restart was required, log in to the BESFNDWIN10 virtual machine as **tecuser** with a password of **bigfixrocks**.

This completes the exercise.

Exercise 21: Creating a Windows Patch Policy

Master Operator required

Patch Policies define a patch list determined by a set of inclusion criteria, exclusion keywords, additional inclusion keywords, a refresh schedule, and one or more deployment schedules with associated targets Once a Patch Policy is defined, it can be activated to establish continuous patching across the enterprise.

Patch policies are available for Windows, Mac, and Linux operating systems.

In this exercise, you use the WebUI to create a new Patch Policy for applying Windows 10 patches.

____1) Switch to the **BESFNDWINROOT** virtual machine and return to the **WebUI** in the **Firefox** browser. If your session has expired, log in using **adminmo** with a password of **B1gfixrocks**.

2) Select Apps -> Patch Policies. The Policies page opens.

_____3) Click Add Policy located in the upper-left portion of the Policies page. The Add Policy page opens

	Devices	Apps ~	De
Policies			
0 policies	Add Policy	1	
Policy Name 🐧	Des	cription	
Type for searc			

- _____4) Enter Windows 10 Patch Policy in the Policy Name field.
- _____5) Choose **Windows Baselines** from the **Site** drop down box.
- 6) Enter **Monthly Windows 10 Patch Polic**y in the **Description** field.
 - ____7) Place a check beside the **External Content** option.

Criteria Name* dows 10 Patch Policy ption thly Windows 10 Patch Policy e Content * ustom Content	Site* Windows Baselines	•		
	ame* ows 10 Patch Policy ion hly Windows 10 Patch Policy Content *	ame* Site* Windows Baselines United Windows Baselines United Windows Baselines United Windows Baselines United Windows 10 Patch Policy	ame* Site* Windows Baselines	ame* Site* Windows 10 Patch Policy Windows Baselines

- ____8) Select **Windows** from the **Operating System** drop-down box.
- 9) Select **Bug Fix** and **Security** from the **Category** drop-down box.
- _____10) Select **Critical**, **Important** and **Moderate** from the **Severity** drop-down box.
- 11) Select **OS Updates** in the **Content Type** section and then select **Windows 10** as the **OS Version**.

b BigFix	Devices	Apps ~	Deployments Reports	• •	ወ	^
			Operating System* Category* Windows • Bug Fix × Security × • • • • •			
			Content Type * So S Updates OS Version: * So S Application Updates Sort 2012 Sort 2019 Sort 2019 Sort 2019 Sort 2019 Sort 2019 Sort 2012 Sort 20			~

_12) Enter the following keywords in the **Content to Exclude** field. Press **Enter** after entering each string:

- Java
- .Net
- SQL

Note: You can also add additional keyword inclusions in the Include field below the Exclusions. In this lab we only specify exclusions.

___13) Click **Next**. The Auto-refresh page opens

The Pre-patch & Post-patch page opens.

_____14) Click **Next**. The Auto-refresh page opens.

- ____15) Click the Enable auto-refresh icon.
- ____16) Choose **Weekly** from the **Refresh cycle** drop-down box.
- ____17) Select Saturday from the Day drop-down box. Leave the rest of the settings at their defaults and click Save. The Windows 10 Patch Policy page opens.

BIGFIX	Devices	Apps ~	Deployments	Reports				• •	ሰ	^
BIGFIX Policy Criteria Pre-patch & Post- Auto-refresh		Apps ~	Deployments Auto-refresh Centre Enable auto Refresh cycle Weekly Day Saturday		rver Time	UTC	Canc		ტ ive	
										~

_18) Click **Add Schedule** to define a patch deployment schedule. The Add Policy Schedule page opens.

____19) Enter the following information in the **Patch Policy Schedule Criteria** section of the page.

- Enter Windows 10 Monthly Patch Schedule in the Schedule Name field.
- Leave the default value of **Monthly** in the **This event repeats** field.
- Choose **0** from the **Day Offset** drop-down box.
- Choose **3rd** from the **Week** drop-down box
- Choose **Saturday** from the **Day** drop-down box
- Enter 01:00 in the Time (24-hour) field
- Select 2 Days as the Patching duration

	Devices	Apps ~	Deployments	Reports			• •	ሳ
Add Pol	icy Scł	nedule	;					
Patch Policy	Schedule Cri	teria						
Schedule Name	e *							
Windows 10	Monthly Patch	n Schedule						
This event repe Monthly	eats •							
Day Offset		Week	Day	Time (24-hour)				
0	days after the	3rd 🔫	Saturday	- 01:00	Client Time	UTC		
Patching durat	ion:							
2	Da	ays	•					
Run within	the Maintena	nce Window	0					

_20) Enter the following information in the **Configuration** section of the page.

- Select the **Download** required files option and set the value to **3 Days** before patching starts.
- Select the Force Restart option and leave the default timeframe and User Message.

b B I G F I X Devices Apps ~ Deployments Reports	0 ×	ባ	^
Configuration			
Download required files 3 Cays - before patching starts			
Stagger patching start time to reduce network load by 1 + hours 0 + minutes			
Skip errors and continue patching			l
Retry up to 3 times when a patch fails to install			
Force Restart 1 day after 👻			
User Message			
Your system administrator is requesting that you restart your computer. Please save any unsaved work and then take this action to restart your computer.			
			~

_21) Scroll to the bottom of the page and click **Save**. The Windows 10 Patch Policy page opens and the schedule that was just define appears in the Schedules tab.

	Devices	Apps Y	Deployments	Re	ports						
Windows 10 Patch Policy											
Schedules	Schedules External Content										
Monthly Window	s 10 Patch Po	licy									
1 schedule	Add Sch	nedule	Vie	W:	20	•	<	1	•	>	1 of 1 pages
Schedule Name			Frequenc	Frequency				Targets			
Windows 10 N	Monthly 3rd	Monthly 3rd Sat 01:00 Client Time)	Add Targets				

__22) Click the **Add Targets** link in the **Windows 10 Monthly Patch Schedule** row. The Add Targets to Policy page opens.

____23) Click the **Target by properties** tab.

____24) Select **Single condition** from the **drop-down** box in the **Apply Condition** pane.

- _25) Define the targeting condition as follows:
 - Select **OS** from the **Property** drop-down box.
 - Select **String Contains** from the **Operator** drop-down box.
 - Begin typing **Win10** in the **Value** field then select the operating system from the filtered list.

BIGFIX Devices A	ops ~ Deployments Reports
Target by device Target b	y group Target by properties Target by client relevance
Conditions <	Apply Condition: New condition
磊 In use	Save 🖸
Saved (0)	Single condition 🔻 :
	Property ⑦
	OS 🗸
	Operator
	String - Contains
	Value
	Win10 10.0.18363.1379 (1909)
	Remove all Apply

- _____26) Click **Apply**. Then click **Save** in the upper-right portion of the **Add Targets to Policy** page. The Windows 10 Patch Policy page opens.
- _____27) Click the **icon** beside **Suspended** in the upper-right portion of the **Windows 10 Patch Policy** page to activate the new policy. The policy status changes to Active.

	Suspended 0 Updates	0
Policy ID Modified Created by	1 30 minutes ago adminmo	

____28) Click the **External Content** tab for the defined policy to view the patches that are included in the policy based on the criteria that was selected.

___29) Click the **Excluded** tab on the **External Content** page to view the patches that are being excluded from the policy based on the Exclusion Criteria that was defined during the policy creation.

Tip: You can edit the policy at any time. Before making changes to the patch policy, you must first change it from Active to Suspended.

This completes the exercise.

BigFix Foundation - Patching Linux

Student exercises

Overview

BigFix for Patch Management is a comprehensive solution for delivering Microsoft, UNIX, Linux, Mac, and select vendor application patches through a single console. Built on BigFix technology, it gives you unified, near real-time visibility and enforcement to deploy and manage patches to all distributed endpoints.

You can use the Patch Management solution by itself, but it is also included with the Lifecycle, Compliance, and Remediate solutions.

In these exercises, you use Patch Management to patch clients across the enterprise through practical end-to-end hands-on experience. The exercises in this module demonstrate how to patch CentOS 7 Linux clients.

Exercise 22: Configuring the download plug-in for CentOS Linux

Access to patch bundles and updated RPMs for non-Windows platforms are usually based on subscriptions and require credentials to access the patch content. To enable BigFix to access this subscription based content, you must register the platform-specific download plug-in with the server or relay.

In this exercise, you register the CentOS Plug-in R2 download plug-in with the server.

1) Switch to the **BESFNDWINROOT** virtual machine and return to the BigFix **Console**.

2) Select the **Patch Management** domain in the lower-left portion of the **Console**. The navigation pane updates to show the Patch Management content.

___3) In the navigation pane, expand the All Patch Management -> Dashboards nodes and select the Manage Download Plug-ins dashboard. The Manage Download Plug-ins dashboard opens.

Note: If you have not Activated the Analyses as described in the earlier lab exercises, you might get a warning that certain analyses must first be activated for the dashboard to display. If this occurs, simply follow the instructions that are presented in the warning message to activate the appropriate analyses.

4) Select the **radio button** beside the **BESFNDWINROOT** computer in the **Servers And Relays** section of the dashboard. The Plug-ins section of the dashboard becomes active at the bottom of the dashboard and shows a list of plug-ins that can be or that are already registered on the selected system.

_5) Scroll towards the bottom of the available plug-ins and select the **CentOS Plug-in R2** plug-in. The Register button becomes active at the top of the Plug-ins section of the dashboard.

Plug	Plug-ins										
Re	Register Unregister Configure Upgrade										
	Plug-in Name	Plug-in Version	Status								
0	FixCentral Plug-in	N/A	Not Installed	^							
0	SCC Plug-in (SUSE)	N/A	Not Installed								
0	RHSM Plug-in (Red Hat)	N/A	Not Installed								
۲	CentOS Plug-in R2	N/A	Not Installed								
0	AIX Plug-in R2	N/A	Not Installed	~							

____6) Click **Register**. The Register CentOS Plug-in R2 window opens.

_____7) Leave all the fields blank as we do not require a proxy and click **OK**. The Take Action window opens.

Register CentOS Plug-in R2	×
This wizard installs and configures the CentOS Plug-in R2. Existing configurations are overwritten.	
Proxy Server Settings	
Proxy URL	
Proxy Username	
Proxy Password	
Confirm Proxy Password	
OK Cancel	

8) Click the **Target** tab and choose **BESFNDWINROOT** from the list of available targets.

___9) Click **OK** to initiate the action.

____10) Monitor the status of the action and wait for it to change to **Completed** before continuing.

____11) Select the Manage Download Plug-ins dashboard from the Navigation pane.

____12) Scroll to the top of the dashboard and click the **Refresh** icon in the upper-right portion of the dashboard.



_13) Select the **radio button** beside the **BEFNDWINROOT** entry and then scroll down to the **CentOS Plug-in R2** row in the Plug-ins section of the dashboard to verify that the plug-in has been installed and that the status is show as **Up-To-Date**.

Plug	-ins		
R			Filter
	Plug-in Name	Plug-in Version	Status
0	RHSM Plug-in (Red Hat)	N/A	Not Installed
0	CentOS Plug-in R2	1.0.0.6	Up-To-Date
0	RockyLinux Plug-in	N/A	Not Installed
0	AIX Plug-in R2	N/A	Not Installed
<			>

The completes the exercise.

Exercise 23: Patching a Linux System

Applying a single patch is the same regardless of the target platform. In this exercise, you Take Action on a single patch Fixlet to apply a path to the CentOS 7 server.

Before applying a patch to a Linux endpoint, you must first import their respective RPM-GPG-KEY. This must be done at least once. You can also include this task in your Linux patch baselines to ensure that this has been performed on the target systems before attempting to apply the patches.

_1) Switch to the **BESFNDWINROOT** virtual machine and return to the BigFix **Console**.

__2) Click the **Patch Management** domain in the lower-left portion of **Console**. The navigation pane above updates to display only the content that is associated with the Patch Management domain.

____3) In the navigation pane, expand the Sites > External Sites > Patches for CentOS7 Plugin R2 nodes and select the Fixlets and Tasks node. The list area updates to show the Fixlets and Tasks that are associated with the selected external site.

____4) Enter **GPG** in the **live search field** that located in the upper-right portion of the Console. The list of Fixlets and Tasks is filtered to show only those that contain the search string.

___5) Select the **Import RPM-GPG-Key-centos-release – CentOS 7** Task from the list. The details for the selected Task are shown in the work area below.

____6) Click **Take Action**. The Take Action window is displayed.

7) Click the Target tab and select BESFNDCENTOS from the list of available targets.

_____8) Click **OK** to initiate the action. Monitor the status of the action until it changes to **Completed** before continuing.

You now select and deploy a single patch to the BESFNDCENTOS endpoint.

_____9) Switch to the **BESFNDCENTOS** virtual machine.

____10) Press the **ESC** key to display the login screen.

11) Select **Not listed** and log in as **root** with a password of **bigfixrocks**.

_12) **Right-click** on the **Desktop** and choose **Open Terminal** from the context menu. A terminal window opens.

_13) Type the following command in the terminal window and press **Enter**:

rpm -qa | grep -i firefox

This command returns the current version of Firefox that is installed on the BESFNDCENTOS virtual machine.

root@BESFNDCENTOS:~	-	×
File Edit View Search Terminal Help		
<pre>[root@BESFNDCENTOS ~]# rpm -qa grep -i firefox firefox-52.7.0-1.el7.centos.x86_64 [root@BESFNDCENTOS ~]# ■</pre>		

_14) Switch to the **BESFNDWINROOT** virtual machine and return to the **Console**.

___15) In the navigation pane, expand the **OS Vendors > CentOS > CentOS 7** nodes and then select the **Security Advisories** node. The list area is updated to show the Relevant security advisory Fixlets

___16) Enter **Firefox** in the **live search** field located in the upper-right portion of the list area. The list of Fixlets is filtered to show only those that contain the search string.

_____17) Choose any relevant **Firefox Security Update** Fixlet in the list. The details for the selected Fixlet are shown in the work area below.

18) Click the **Description** tab and review the information for the selected patch.

___19) Click **Take Action** and choose the default action which is the first one shown in the list of available actions. The Take Action window opens.

Note: These Linux patch Fixlets often contain a test action which can be used to test the patch deployment without applying the patch. Make sure that you select the correct option.

____20) Click the **Target** tab and select **BESFNDCENTOS** from the list of available targets.

___21) Click **OK** to initiate the action. Monitor the status of the action until it changes to **Fixed** before continuing.

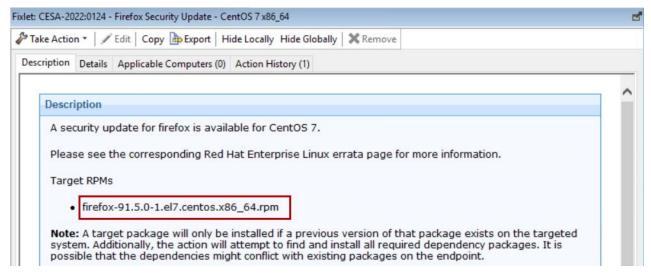
___22) Switch to the **BESFNDCENTOS** virtual machine. If the screen is locked press the **ESC** key and enter **bigfixrocks** as the password for **root**.

23) Enter the following command to confirm that the Firefox version has been successfully updated:

rpm -qa | grep -i firefox

root@BESFNDCENTOS:~	-	×
File Edit View Search Terminal Help		
<pre>[root@BESFNDCENTOS ~]# rpm -qa grep -i firefox firefox-52.7.0-1.el7.centos.x86 64</pre>		
<pre>[root@BESFNDCENTOS ~]# rpm -ga] grep -i firefox firefox-91.5.0-1.el7.centos.x86_64 [root@BESFNDCENTOS ~]#</pre>		

You now see that the version of Firefox that is installed on the BESFNDCENTOS virtual machine matches the version that is referenced on the Description tab of the patch Fixlet that was applied.



This completes the exercise.

Exercise 24: Using Multiple-Package Baselines

Multiple-Package Baselines allow you to combine the installation of updates for multiple packages into a single task which can reduce the execution time of the baseline. With Multiple-Package baselines, the packages are installed using a single Yum command instead of a separate Yum command for each patch Fixlet.

Because Multiple-Package Baselines combine the installation of multiple packages using a single Yum transaction you cannot undo a single package update. If having the ability to undo a single package install is important, you could use traditional Baselines instead.

In this exercise, we create a custom site to hold our Linux baselines. We then create a Multiple-Package baseline and apply it to the BESFNDCENTOS endpoint.

____1) Switch to the **BESFNDWINROOT** virtual machine and return to the BigFix **Console**.

_____2) From the **Console** menu select **Tools > Create Custom Site**. The Create Custom Site window opens.

____3) Enter Linux Baselines as the name and click OK. The Custom Site: Linux Baselines pane opens.

- _4) Click the **Computer Subscriptions** tab and define the criteria as follows:
 - Select the Computers which match the condition below option
 - Select **OS** from the first drop-down
 - Verify that contains is selected from the second drop-down
 - Enter CentOS in the text field

Custom Site: Linux Baselines	2
Save Changes Discard Changes Gather Add Files 🗙 Remove	
Details Computer Subscriptions Operator Permissions Role Permissions	
The following computers will be subscribed to this site:	
○ All computers	
○ No computers	
O Computers subscribed via ad-hoc custom site subscription actions	
Computers which match the condition below	
OS v contains v CentOS -	+
Connected to 'besfndwinroot' as user 'adminmo'	

- 5) Click Save Changes in the upper-left portion of the Custom Site window.
- _____6) From the **Console** menu, select **Tools > Create New Baseline**. The Create Baseline window opens.
- _____7) Enter CentOS Patches in the Name field.
- _____8) Select Linux Baselines from the Create in site drop-down menu.
- _____9) Enter CentOS Multi-package baseline in the Description field.
- ____10) Click the **Components** tab.
- _____11) Click the **[edit name]** link next to **Component Group 1**.
- 12) Change the name of the component group to Linux Patches then click Save Group Name.
 - ____13) Click the [add components to group] link under Linux Patches. The Add Baseline components window opens.

__14) Select the Fixlet Messages tab and expand the All Relevant Fixlet Messages > By Site > Patches for CentOS7 Plugin R2 > By Source Severity nodes then select the Moderate node. _15) While pressing the **Ctrl** key, select 2 or 3 **non-kernel** patch Fixlets from the list then click **OK**. The selected Fixlets are added to the Components tab of the Baseline.

Create Ba	iseline				-		
ne:	CentOS Patches	Create in site:	Linux Base	lines		~	
		Create in domain:	Patch Man	nagement		~]
scription	Components Relevance Properties						
1000							
Linu	x Patches [edit name]					_	
Linu	CESA-2021:3810 - Libxml2 Security Update - CentOS 7	Action1 (F)ofault)		~		
		Action1 (E	Default)	× 8		(< >)	
	CESA-2021:3810 - Libxml2 Security Update - CentOS 7 x86_64 [go to source] CESA-2021:4782 - Openssh Security Update - CentOS 7					-	
•	CESA-2021:3810 - Libxml2 Security Update - CentOS 7 x86_64 [go to source]	Action1 (D		× 8 × 8	0	(K))	
•	CESA-2021:3810 - Libxml2 Security Update - CentOS 7 x86_64 [go to source] CESA-2021:4782 - Openssh Security Update - CentOS 7 x86_64	Action1 (E	Default)			-	

Important: Verify that there is an action selected for each patch Fixlet added to the Components tab or there will be a warning message with be shown at the top of the Components tab. For any Fixlet without an action, choose **Action 1** from the action drop-down.

__16) Click the **[add components to group]** link under **Linux Patches**. The Add Baseline components window opens.

____17) Click the **Tasks** tab.

__18) Expand the All Applicable Tasks > By Site nodes and select the Patches for CentOS7 Plugin R2 node. A list of Relevant Tasks is displayed.

____19) While pressing the **Ctrl-key**, select the following **Tasks** from the list:

- Multiple-Package Baseline Installation CentOS 7 x86_64
- Enable the Multiple-Package Baseline Installation feature CentOS 7
- Import RPM-GPG-KEY-centos-release CentOS 7

___20) Click **OK**. The 3 Tasks are added as Components to the baseline. You must now put the Multiple-Package baseline Tasks in the correct order.

_21) Locate the **Import RPM-GPG-KEY-centos-release – CentOS 7** Task in the list. Using the up arrow associated with the Task, keep moving this Task up in the list until it is the first component in the baseline.

	[go to source]		·	V	V
×	Import RPM-GPG-KEY-centos-release - CentOS 7 [go to source]	Action1 (Default)	8		* >>
[ad	d components to group]				

Create	Baseline			-		×
Name:	CentOS Patches	Create in site:	Linux Baselines		~	
		Create in domain:	Patch Management		~	
Descripti						^
	Import RPM-GPG-KEY-centos-release - CentOS 7 [go to source]	Action1 (D	efault) 🗸	8	* >	
•	 CESA-2021:3810 - Libxml2 Security Update - CentOS 7 x86_64 	Action1 (D	efault) 🗸	8	* *	

_22) Locate the **Enable the Multiple-Package Baseline Installation feature – CentOS 7** Task and using the **up arrow** that is associated with the Task, move it up in the list until it is the second component in the list. This Task should be placed immediately before any actual Patch Fixlets.

Create	Baseline							
me:	CentOS Patches	Create in site:	Linux Ba	selines			~	•
		Create in domain:	Patch M	anageme	nt		~	
escripti	on Components Relevance Properties							
_							_	
Lin	ux Patches [edit name]							
LIII								
•		Action1 (E)efault)	~	8		* *	
	Import RPM-GPG-KEY-centos-release - CentOS 7			~	0	<!--</td--><td></td><td></td>		

_23) Verify that the **Multiple-Package Baseline Installation – CentOS 7 – X86_64** Task is located after all the Patch Fixlets on the **Components** tab. If it is not, use the arrows to move it to the correct location.

ame:	CentOS Patches	Create in site:	Linux Baselines		~	
		Create in domain:	Patch Management		~	-
Descript	ion Components Relevance Properties					
Li	nux Patches [edit name]					
0	Import RPM-GPG-KEY-centos-release - CentOS 7 [go to source]	Action1 (E	Default) 🗸	8	***	
)	 Enable the Multiple-Package Baseline Installation feat CentOS 7 [go to source] 	Action1 (D	Default) 🗸	8	***	
)	CESA-2021:3810 - Libxml2 Security Update - CentOS 7 x86_64 [go to source]	Action1 (E	Default) 🗸	8	***	
)	CESA-2021:4782 - Openssh Security Update - CentOS 7 x86_64 [go to source]	Action1 (E	Default) 🗸	8	* *	
)	CESA-2021:4785 - Rpm Security Update - CentOS 7 x86 [go to source]	_64 Action1 (D	Default) 🗸 🗸	8	* *	
1	Multiple-Package Baseline Installation - CentOS 7 - x86_64 [go to source]	Action1 (E	Default) 🗸	8	« »	
Fin	d Sync All Components		6 compone	ents in baseli	ne	

_24) Click OK. The Baseline changes are saved.

_25) Click the **Applicable Computers** tab and wait until the **BESFNDCENTOS** client appears in the list. It might take several minutes for the Baseline applicability relevance to be evaluated before showing up in the list.

Tip: If the BESFNDCENTOS client never appears on the Applicable Computers tab, verify that the Computer Subscriptions for the Linux Baselines custom site was performed properly. Also verify that the CentOS Patches baseline was created in the Linux Baselines custom site.

_____26) Click **Take Action**. The Take Multiple Actions window is displayed.

27) Click the Execution tab and verify that the Run all member actions of action group regardless of errors option is selected.

_28) Click the **Target** tab and select **BESFNDCENTOS** from the list of available targets.

_29) Click **OK** to initiate the action. Monitor the status of the action until it changes to **Completed** or **Pending Restart**. The status depends on which patch Fixlets were included in the baseline.

Note: The execution of a Multiple-package baseline is a 2 step process. It first scans the baseline for all the packages that are included, it then does dependency mapping and finally constructs the yum command to perform an update of all of the packages in one transaction. Because of this process, the status might change briefly to Failed before the final installation is completed.

This completes the exercise.

Exercise 25: Applying a Linux Patch Using the WebUI

There are several methods and paths for applying a patch. In this exercise, you locate and apply a patch using the WebUI

1) Verify that the following virtual machines are started:

- BigFix Server: **BESFNDWINROOT**
- BigFix Windows Client: BESFNDWIN10
- BigFix Linux Client: BESFNDCENTOS
- 2) Switch to the **BESFNDWINROOT** virtual machine. If you are logged off, log in to the server as **adminmo** with a password of **bigfixrocks**.

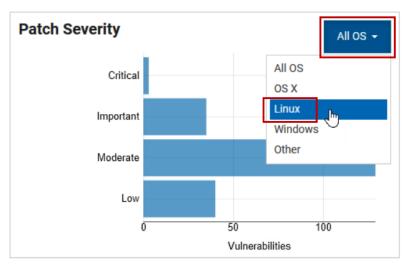
3) Double-click the **Firefox** icon on the **Windows Desktop** and enter the following URL in the address field:

https://BESFNDWINROOT

The BigFix WebUI login page opens.

____19) Enter **adminmo** as the username and **B1gfixrocks** as the password. Click **Login.** The WebUI Overview page opens.

20) Select Linux from the drop-down box in the upper-right portion of the Patch Severity widget.



The Patch Severity widget is filtered to show only the Linux patches.

___21) Click any **bar** representing a severity of Relevant patches in the **Patch Severity** widget. A list of patches that match the severity of the bar that was selected opens.

___22) Click the link in the Patch Name field for the non-kernel patch that you want to deploy. The Overview page for the select patch opens.

_23) Review the description for the patch on the **Overview** page.

_24) Click the Relevant Devices tab and verify that BESFNDCENTOS is in the list of Relevant computers.

Overview Relevant Devices	Deployments									
	1								ID	18105801
Select a favorite report 🔹									Severity	Important
	_				-				CVE IDs	CVE-2018-5146
1 device		tter v	iew: 2	20 👻	<	1 💌 🗦	1 of 1 pag	ges	Category	Security Advisory
Computer Name 1	Critical Patches	Applicable P	↓ De	ployments		Device T	ype	os	Site	Patches for CentOS7 Plugin R2
									Source	CentOS
Type for search	-						•		Source ID	CESA-2018:1058
									Size	603.09 KB
BESFNDCENTOS	Yes	45	54		2	Server		CentOS	Released	30 May 2018
									Modified	16 Oct 2019

__25) Click **Deploy Patch**. The Deploy Patch page opens.

____26) Click **Next**. The Select Targets tab opens on the Deploy Patch page.

Tip: If a patch contains more than one Action, you must first select desired Action before the **Next** button becomes active allowing you to advance to the Select Targets page.

___27) Place a check beside the **BESFNDCENTOS** computer is the list of available targets then click **Next**. The Configure tab opens on the Deploy Patch page.

___28) Review the options on the **Configure** page but do not make any changes.

__29) Click **Deploy** on the right-side of the Deploy Patch page to initiate the action. The deployment page opens for the action.

___30) Click the **Device Results** tab and monitor the status of the action. Wait until the status is **Fixed** before continuing. You can periodically **Refresh** the WebUI browser to update the view.

BIGFIX	Devices	Apps -	Deployments	Reports			\$ *
CESA-2018	3:1058 - L	ibvorbis	Security Up	odate - Cent()S 7 x86_64		
Overview Dev	vice Results						
1 Result					Q Search	Stor	Deployment
Device Name			Last Seen	Status: All	 Sort by: Status View: 20 1/1 ↓ Status 	Behav	
BESFNDCEN	тоѕ		a few sec	onds ago	Fixed	Туре	Patch Single Deployment
			First Previous	1 Next Last		Start	Immediately

This completes the exercise.

Exercise 26: WebUI - Creating a Linux Patch Policy

Master Operator required

As with Windows, the Linux Patch Policies define a patch list determined by a set of inclusion criteria, exclusion keywords, a refresh schedule, and one or more deployment schedules with associated targets. After a Patch Policy is defined, it can be activated to establish continuous patching across the enterprise.

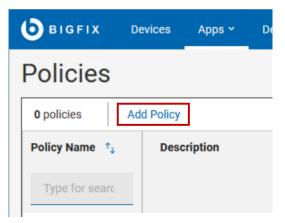
Patch policies are available for Windows, Mac, and Linux operating systems.

In this exercise, you use the WebUI to create a new Patch Policy for applying CentOS 7 patches.

1) Switch to the **BESFNDWINROOT** virtual machine and return to the **WebUI** in the **Firefox** browser. If your session has expired, log in using **adminmo** with a password of **B1gfixrocks**.

_____2) Select Apps -> Patch Policies. The Policies page opens.

3) Click Add Policy located in the upper-left portion of the Policies page. The Add Policy page opens



_____4) Enter CentOS7 Patch Policy in the Policy Name field.

5) Choose **Linux Baselines** from the **Site** drop down box.

- _6) Enter **Monthly CentOS 7 Patch Polic**y in the **Description** field.
- _7) Place a check beside the **External Content** option.

BIGFIX Devices	Apps - Deployments Reports		\$ ~	î
Add Policy				
Policy Criteria	Policy Criteria			
Auto-refresh	Policy Name*	Site*		
	CentOS7 Patch Policy	Linux Baselines	•	1
	Description			
	Monthly CentOS 7 Patch Policy			
		1.		
	Include Content *			
	Custom Content			
	External Content			~

- _8) Select **CentOS** from the **Operating System** drop-down box.
- 9) Select **Bug Fix** and **Security** from the **Category** drop-down box.
- 10) Select **Critical**, **Important** and **Moderate** from the **Severity** drop-down box.
 - _11) Select **OS Updates** in the **Content Type** section and then select **CentOS 7** as the **OS Version**.

b BIGFIX	Devices	Apps ~ D	eployments	Reports				• •	
		Exte	rnal Content	Criteria					
		Oper	ating System*			Category*			
		Ce	entOS		•	Security × Bug Fix ×)€		
		Seve	rity*		^				
		0	critical ×	Important ×	^				
			Noderate ×		v				
		Cont	ent Type *			OS Version: * CentOS 8			
			OS Updates			CentOS 7			
			OS Applicatior	n Updates		CentOS 6			
			3rd Party Upda	ates					

_12) Enter the following keywords in the **Content to Exclude** field. Press **Enter** after entering each string:

- Kernel
- Java

_13) Leave the Include content field blank and click Next. The Auto-refresh page opens.

xclude content whose title contains	the following keywor	
Kernel × Java ×		
clude content whose title contains	the following keywor	
Add keywords	the following keywor	
	the following keywor	
nclude content whose title contains	the following keywor	

___14) Click **Next**. The Pre-patch & Post-patch page opens.

_____15) Leave the **Pre-Patch** and **Post-Patch** fields **blank** and click **Next**. The Auto-refresh page opens.

____16) Click the **Enable auto-refresh** icon.

_____17) Choose **Weekly** from the **Refresh cycle** drop-down box.

18) Select **Saturday** from the **Day** drop-down box. Leave the rest of the settings at their defaults and click **Save**. The CentOS7 Patch Policy page opens.

	Devices	Apps ~	Deployments	Reports			٠	~	^
Add Poli	су								
Policy Criteria			Auto-refresh						
Pre-patch & Post	-patch		Enable auto	o-refresh					
Auto-refresh			Refresh cycle						
			Weekly	•					
			Day	Time (24-hour)					
			Saturday	→ 17:00	WebUI Server Time	UTC			
							Cancel	Save	
									~

_19) Click Add Schedule to define a patch deployment schedule. The Add Policy Schedule page opens.

20) Enter the following information in the **Patch Policy Schedule Criteria** section of the page.

- Enter CentOS 7 Monthly Patch Schedule in the Schedule Name field.
- Leave the default value of **Monthly** in the **This event repeats** field.
- Choose **0** from the **Day Offset** drop-down box.
- Choose **2**nd from the **Week** drop-down box
- Choose **Saturday** from the **Day** drop-down box

- Enter 01:00 in the Time (24-hour) field
- Select 2 Days as the Patching duration

	Devices	Apps ~	Deployments	Reports				۰ پ	ባ	^
Add Poli	cy Sch	nedule								
Patch Policy S	chedule Crit	teria								
Schedule Name	*									
CentOS 7 Mor	nthly Patch Sc	hedule								
This event repea	ats									
Monthly	•									
Day Offset		Week	Day	Time (24-hou	r)	-				
0	days after the	2nd 💌	Saturday	• 01:00	Client Time	UTC				
Patching duration	on:									
2	Da	ays	•							
Run within	the Maintenar	nce Window	9							~

- _21) Enter the following information in the **Configuration** section of the page.
 - Select the **Download** required files option and set the value to **3 Days** before patching starts.

BIGFIX Devices Apps ~ Deployments	Reports	۰.	ሳ	^
Configuration			_	
Download required files	▼ before patching starts			
Stagger download start time to reduce network load by	1 hours minutes			
Skip errors and continue patching				
Retry up to 3 times when a patch fails to i	nstall			
Force Restart 1 day after 👻				

_22) Scroll to the bottom of the page and click **Save**. The CentOS7 Patch Policy page opens and the schedule that was just defined appears in the Schedules tab.

	Devices	Apps ~	Deployments	Reports					
CentOS7	Patch	n Polio	су						
Schedules	External Co	ntent							
Monthly CentOS	7 Patch Policy	,							
1 schedule	Add Sch	nedule	١	/iew: 20	•	<	1 👻	>	1 of 1 pages
Schedule Nam	e		Frequenc	y				Та	argets
CentOS 7 Mon	thly Patch Scl	hedule	Monthly 2n	d Sat 01:00 Cli	ient Ti	me]	Ad	d Targets
<									>

___23) Click the Add Targets link in the CentOS 7 Monthly Patch Schedule row. The Target Devices page opens.

_24) Scroll to the right and locate the **OS** column. Expand the **Linux > Centos** nodes and then select **CentOS 7** from the list. The devices are filtered to show only CentOS 7 devices. Place a **check** beside **Device Name** column header to select all the devices then click **Save**.

BIGFIX Devices Apps ~	Deployments Repo	rts			። - ሲ	
Add Targets to Pol	licy		Skip lock	ed constraints duri	ng patching Cancel Save	
Target by device Target by grou	IP Target by propertie	s Target by o	client relevance	A	Suspended	
1 device 😵	C E View: 20	▼ < 1 ▼	7 > 1 of 1 pages	$\mathbf{G}\mathbf{O}$	0 Updates 🖸	
				Policy ID	2	
Computer Name 🐧	Device Type	OS	Groups	Modified	9 minutes ago	
Type for search	•	1 ×	•	Created by	adminmo	
				External Crite	eria	
BESFNDCENTOS O	4 Server	V 🔽 Linux	quc	OS	CentOS	
		V V Ce	ntOS	Severity	Critical, Important, Moderate	
		~	CentOS 7	Category	Bug Fix, Security	
		> 🗌 Windo	ws	Туре	OS Updates	
				Site	Linux Baselines	
<			>	Exclusion Cr	iteria	

Tip: There are several ways to define targets for the schedule besides Target by device. You can also use the Target by group, Target by properties or Target by client relevance tabs.

_25) Click the **icon** beside **Suspended** in the upper-right portion of the **CentOS 7 Patch Policy** page to activate the new policy. The policy status changes to Active.

	Suspended 0 Updates	0
Policy ID	2	
Modified	22 minutes ago	
Created by	adminmo	

_____26) Click the **External Content** tab, then click the **Included** tab to view the patches that are included in the policy based on the criteria that was selected.

___27) Click the **Excluded** tab on the **External Content** page to view the patches that are being excluded from the policy based on the Exclusion Criteria that was defined during the policy creation.

Tip: You can edit the policy at any time. Before making changes to the patch policy you must first change it from Active to Suspended.

This completes the exercise.

BigFix Foundation – Web Reports Student exercises

Overview

Web Reports is a high-level web application that complements and extends the power of BigFix. It can connect to one or more BigFix databases to aggregate data from multiple BigFix deployments across the enterprise. Web Reports allows you to visualize data using both charts and data listings, in any supported web browser.

Web Reports is delivered with dozens of critical reports that are ready to use and provided valuable information about your BigFix deployment, including real-time visualization of patch rollouts, remediation's, policy compliance, and much more. In addition, you can easily create and customize your own reports using faceted navigation to reduce your data to its essentials for fast, targeted access.

In these lab exercises, you configure Web Reports to enable importing of 3rd party reports and then import several 3rd party reports. You also learn how to setup, manage, and use the various Web Reports features.

NOTE: This is not a deployment guide, and it is not designed to show a secure implementation.

Exercise 27: Enable the Import Report Feature

In this exercise, you enable the Import Report feature in the BigFix Web Reports server.

- ____1) Switch to the BESFNDWINROOT virtual machine and log in as Administrator with a password of bigfixrocks.
- 2) Click the Windows Start icon in the lower-left portion of the Windows Desktop. Enter regedit in the Search Windows field. Click regedit in the Best match pane to open the regedit application. The Registry Editor pane opens.

____3) Navigate to the HKLM\SOFTWARE\WOW6432Node\BigFix\Enterprise Server\BESReports key.

- _4) Modify the AllowCustomReportCreation entry by changing it from 0 to 1.
- _5) Modify the **AllowUserViewCustom** entry by changing it from **0** to **1**.

> Partner	^	Name	Туре	Data		
RegisteredApplications		ab (Default)	REG_SZ	(value not set)		
Thunderbird		ab AllowCustomReportCreation	REG_SZ	1		
>		ab AllowUserViewCustom	REG_SZ	1		
WOW6432Node		ab ArchivePath	REG_SZ	C:\Program Files (x86)\BigFix Enterprise\BE		
BigFix		ab EmailServerPassword	REG_SZ			
BES Installation Generator		ab EmailServerUser	REG_SZ			
> BESRelay		ab GraphsPath	REG_SZ	C:\Program Files (x86)\BigFix Enterprise\BE		
> BigFix Server		ab GraphsURL	REG_SZ	//images/besreports/graphs		
Brand		ab PasswordComplexityRegex	REG_SZ	(?=.*[[:lower:]])(?=.*[[:upper:]])(?=.*[[:digit:		
ClientComplianceAPI		ab Path	REG_SZ	C:\Program Files (x86)\BigFix Enterprise\BE		
V Enterprise Server		ab PDFExe	REG_SZ	C:\Program Files (x86)\BigFix Enterprise\BE		
> - BESReports		ab ReportFilesCheck	REG_SZ	1		
		and a second	10.00			
> FillAggregateDB	~	<		2		

_6) Close regedit.

___7) Click the **Windows Services** icon in the **Windows Task Bar** at the bottom of the screen. The Services application opens.

___8) Right-click the **BES Web Reports Server** service and select **Restart** from the context menu. The Service Control window opens while the service restarts.

_____9) Close the **Services** application.

_____10) Double-click the **Firefox** icon on the **Windows Desktop** if it is not already open. The Firefox browser opens.

____11) Enter the **Web Reports URL** in the address bar of the browser as follows:

https://besfndwinroot:8083

Note: You might receive a Potential Security Risk warning message. If so, click Advanced, then click Accept the Risk and Continue.

The Web Reports Login page opens.

_____12) Enter the following information to create the Web Reports administrative ID:

____a) Full Name: webreportsadmin

____b) User logon name: webreportsadmin

____c) Password: B1gfixrocks

____d) Confirm password: B1gfixrocks

___13) Click **Continue**. The Web Reports Domain page opens. If you are prompted to save the login information, click **Save** if desired.

_14) Click **Report List**. The Report List page opens and shows a list of the reports that come with the product that correspond to the various content domains that you have enabled.



_15) Validate that the **Import report link** is displayed in the upper-left portion of the **Report List** page.

овідбіх Web	Reports		
Explore Data	Report List	Administration	
Import report			
Only show starred	Label - Dele Select: All, None	te	
Filter by Label Find labels	Name	ist	

Note: If the Import report link is not visible, verify that you have successfully completed steps 2-8 of this exercise.

This completes the exercise.

Exercise 28: Import - Custom Web Reports

In this exercise, you learn how to import custom reports from external sources.

1) Switch to the **BESFNDWiNROOT** virtual machine and return to the **Firefox** browser. If the Web Reports session has timed out, you can login as **webreportsadmin** with a password of **B1gfixrocks**.

2) Click **Report List** if you are not already on that page. The Import Report page opens.

_____3) Click the **Import report** link.

4) Import the Schedulable Compliance by Computer v1.1.beswrpt file as follow:

____a) Click **Browse** in the **Filename** field. The File Upload window opens.

____b) Double-click the **BigFixSrc** folder on the **Windows Desktop**.

_____c) Double-click the **Schedulable Compliance Reports v1.1** folder.

____d) Select the Schedulable Compliance by Computer v1.1.beswrpt file and click Open.

____e) Verify that the **XML** option is set in the Format section.

- ____f) Select the **Public** option in the Visibility section
- ____g) Click Import.



The Report List page opens and the new report appears in the list.

__5) Repeat the previous steps to import the Schedulable Compliance by Content v1.2.beswrpt file from the same folder.

O BIGFIX Web Reports							
	Explore Data	Report List	Administration				
Import	Import Report						
			gFix Support web site.				
	Browse Schedulab		Content v1.2.beswrpt				
Format: OXML (*.beswrpt / *.webreport) OHTML (*.ojo / *.besrpt)							
Visibility: OPrivate							
Import							

_____6) Click **Report List** if you are not already on that page. The Import Report page opens.

_____7) Click the Import report link.

8) Import the **Fixlet Compliance by Computer Group v2.0.beswrpt** file as follows:

_____a) Click **Browse** in the **Filename** field. The File Upload window opens.

____b) Click **Desktop** in the left side of the File Upload window.

- _____c) Double-click the **BigFixSrc** folder on the **Windows Desktop**.
- ____d) Double-click the Interactive Fixlet Compliance Reports v2.0 folder.
- _____e) Double-click the ext-3.2.0-computercompliance17-asset12-fixletcompliance12 folder.

____f) Double-click the **ext-3.2.0** folder.

- g) Select the **Fixlet Compliance by Computer Group v2.0.beswrpt** file and click **Open**.
- ____h) Verify that the **XML** option is set in the Format section.
- ____i) Select the **Public** option in the Visibility section
- ____j) Click Import.

Ю в і б	FIX Web	Reports			
	Explore Data	Report List	Administration		
Import Report Click here to check for new custom reports on the BigFix Support web site. Filename: Browse Fixlet Compliance by Computer Group v2.0.beswrpt Format: OXML (*.beswrpt / *.webreport) OHTML (*.ojo / *.besrpt)					
Visibility:	Public OPrivate				

The Report List page opens and the new report appears in the list.

____9) Repeat the previous steps to import the Fixlet Compliance by Content v2.0.beswrpt file from the same folder.

O BIGFIX Web Reports							
	Explore Data	Report List	Administration				
Import Report							
Click here to check for new custom reports on the BigFix Support web site. Filename: Browse Fixlet Compliance by Content v2.0.beswrpt Format: OXML (*.beswrpt / *.webreport) OHTML (*.ojo / *.besrpt)							
Visibility:	Public Private						
Import							

You should have now imported 4 custom reports.

____10) Click **Report List** at the top of the **Web Reports** browser window. A list of all the reports that you are allowed to view is displayed in the browser.

_11) Select the box beside **webreportsadmin** in the **Filter by Author** section of the **Reports List** page. The list of reports is filtered to show only those that were created by the webreportsadmin user.

овідеіх Web	Rep	oorts			webr	Search Con eportsadmin :: P	nputers
Explore Data	Rep	oort List Administration					Version: 10.0.4.32
Import report							
Only show starred	Labe	odaloin topolio					
Filter by Label	Select	t: All, None	Labels	Author	Visibility	Scheduled	Last Modified
Find labels		☆ Fixlet Compliance by Computer Group (v2.0)		webreportsadmin	Public v	No	2:02 pm
Patch Management		☆ Fixlet Compliance by Content (v2.0)		webreportsadmin	Public v	No	2:05 pm
Systems Lifecycle		☆ Schedulable Compliance by Content Template		webreportsadmin	Public v	No	1:53 pm
		\precsim Schedulable Fixlet Compliance by Computer Template		webreportsadmin	Public v	No	1:48 pm
Selected labels:							
Viewing all labels							
Filter by Author clear Find authors							
webreportsadmin							

_12) Mark all 4 of the custom reports as **Favorites** by clicking the **star** icon for each custom report in the list. The star icon will be colored yellow after it is selected.

_13) Select the link for the **Schedulable Fixlet Compliance by Computer Template** report. It might take several seconds to load.

_14) Expand the **Filter** section if needed. Add an additional filter by clicking the **plus (+)** icon to the right of the existing **Your Computer Group Name** filter. An additional filter is added to the list of existing filters.

() BI	GFIX	Web	Reports				webreport	Search Compu sadmin :: Pref	ters 👂 erences :: Logout
	Explo	ore Data	Report List	Administr	ation				Version: 10.0.4.32
	Compu	iters Con	tent Actions Op	erators Unr	managed	Assets Custom			
Sche	dulable	Fixlet	Compliance	by Con	npute	r Template	Printable Version ::	Save Report	Save Report As
Filter								Save Filter -	Load Filter - Clear
Results	match all	 ✓ conditi 	ons.						
	Computer	▼ Con	nputer Groups		is	Your Computer Group Name	add clause	- +	
and	Computer	▼) Sei	arch Properties					- +	
and	Site	v]			is	Patches for Windows v	add clause	- +	
and	Content	v So	urce Severity	~	İs	 ✓ Critical 	add clause	- +	
and	Content	v So	urce Release Date	v	is after	✓ 04/01/2015	add clause	- +	
									Apply Filter

15) Modify the new filter as follows:

____a) Leave **Computer** in the first drop-down box unchanged.

____b) Enter **Computer Groups** in the **Search Properties** text box. As you type the available properties are filtered. Select the **Computer Groups** property.

____c) Select **Windows Group** from the last drop-down box.

_16) Click the **minus (-)** icon next to the original **Your Computer Group Name** filter to remove it leaving your newly defined filter in its place. The report filters now appear as follows:

Filter		Save Filter - Load Filter - Clear
Results	s match all v conditions.	
	Computer v Computer Groups (is v Windows Group v add clause	- +
and	Site • Patches for Windows • add clause	- +
and	Content Source Severity is Critical add clause	- +
and	Content Source Release Date is after 04/01/2015 add clause	- +
		Apply Filter

_17) Click **Apply Filter** in the lower-right portion of the **Filter** section. Your report is updated to reflect the updated Filter.

_18) Scroll down towards the bottom of the report to view the results with the updated filter.

	Content Actions Operators				Printable \	/ersion :: Save Rep	ort Save Report
	det Compliance by 0	Jompute	er template"		Filliable V	Save Rep	Save Report
Filter						Save Fi	lter - Load Filter - C
t Source							
Schedulable Fixlet Co	mpliance by Computer Template				Rep	oort Date: Thu, 10 Feb 2	022 14:29:07 -0800
			0.0				
Summary v1.1			39			Compl	iance
Total Applicable Fixl	ets: 39			22		e e i i i p i	
Total Installed Fixlet	s: 17			17			1%
Total Outstanding Fi	xlets: 22						+ /0
						2	Computers
Compliance:	44%		Applicable	Installed Outstand	ing	2	o o nipatoro
	Operating System	IP Address	Last Report Time	Applicable Fixlets	Installed Fixlets	Outstanding Fixlets	Compliance •
Computer	Operating system						

_19) Click **Save Report** in the upper-right portion of the modified report. The report is saved with the updated Filter and can be recalled without modification.

This completes the exercise.

Exercise 29: Exploring Data and Using Filters

In this exercise, you view Web Reports data and modify data filters.

__1) Switch to the **BESFNDWINROOT** virtual machine and return to the **Firefox** browser. If the Web Reports session has timed out, you can login as **webreportsadmin** with a password of **B1gfixrocks**.

- ____2) Click Explore Data in the upper-left portion of the Web Reports page. The Computers report is displayed.
 - ___3) Verify that the **Filter** section at the top of the report is expanded and review the default Filter.

□ Filter	Save Filter - Load	Filter - C	Clear
Results match all v conditions.			
Computer V Search Properties	- +		
	A	pply Fil	ter

Note: Filters control what data is displayed in the report at the bottom of the page. You can add additional filters or create complex filters to return the desired data. You can choose whether the filters match **all conditions** or **any conditions** which effectively sets them to be either a Boolean **And** statement or a Boolean **Or** statement.

_4) Modify the default filter as follows:

__a) Begin typing Computer Name in the Search Properties field. As you type the properties are filtered. Select Computer Name when it appears.

- ____b) Verify that **contains** is selected in the drop-down box.
- _____c) Enter **Win10** in the last text box.
- ____d) Click Apply Filter.

Filter	Save Filter - Load Filter - Clear
Results match all v conditions.	
Computer Vame Contains V Win10	add clause - +
	Apply Filter

The report at the bottom of the page is updated to reflect the new filters.

What information changed?

____5) Explore other data type and properties on the **Explore Data** tab as desired.

____6) Click **Report List**. The Report List page opens.

_7) Click **Patch Management** under the **Filter by Label** section on the left side of the **Report List**. The report list is updated to show only those reports that are associated with the Patch Management domain.

Explore Data	Report List Administration				1	/ersion: 10.0.4.32
nport report						
Only show starred	Label Delete Search Reports Select: All, None]				
ter by Label clear	Name	Labels	Author	Visibility	Scheduled	Last Modif
	□ ☆ Critical Application Updates (Windows)	Patch Management		Public	No	9:20 am
BigFix Management	□ ☆ Critical Patch Compliance Report (RHEL7)	Patch Management		Public	No	9:20 am
Patch Management Systems Lifecycle	□ ☆ Critical Patch Compliance Report (Windows)	Patch Management		Public	No	9:19 am
Systems Lilecycle	□ ☆ Missing Patch Report (RHEL7)	Patch Management		Public	No	9:20 am
	□ ☆ Missing Patch Report 2015 (Windows)	Patch Management		Public	No	9:19 am
lected labels: Patch Management ter by Author nd authors						

_8) Click the **link** for the **Critical Patch Compliance Report (Windows)** report. The selected report opens in the Firefox browser.

_9) Scroll down to the **Content** section of the report and verify that it is expanded. Click **Edit Columns**.

Tip: Using the options in the **Edit Columns** pane, you can add or remove columns from the report. The **Available Columns** section shows the properties that are available to display in the report. Properties with a check beside them are already selected. You can search for properties by typing a property name in the **text field** at the top of the **Available Columns** pane.

The **Current Columns** section shows all the properties that are currently selected and displayed as columns in the report.

You can expand the data for **Applicable Computers** and **Remediated Computers** by selecting the corresponding option the **Expand** section of the pane. This will show actual computer names for these items instead of just counts.

 Content 		
Edit Columns 🕶	Sort 🕶	
Available Colu	mns	
	r (Analysis) me (Analysis) omputer Count	^
Category Comments CVE Deployed Act	tion Count	
Download Siz		~
 Applicable Co Name Progress 	omputer Count	Â
Source ID Source Seve	Computer Count rity	~
Applicable Co	omputers	

- __10) Update the report by making the following changes in the Edit Columns pane:
- ____a) Place a check beside the **Download Size** option in the Available Columns section of the Edit Columns pane.
- ____b) Un-check **Remediated Computer Count** in the **Current Columns** section of the **Edit Columns** pane.

___c) Place a check beside the Applicable Computers option in the Expand section of the Edit Columns pane.

 Content 								
Edit Columns -	Sort -	Search Content]					
Available Colum	nns							
Activated By	• • •							
Activation Tin	Activation Time (Analysis)							
Applicable Computer Count								
Category								
Comments								
CVE	CVE							
Deployed Act	Deployed Action Count							
🔽 Download Size	✓ Download Size							
🗆 ID			~					
Current Column	าร							
Applicable Co	mputer Co	ount	^					
🗹 Name								
Progress								
Remediated C	omputer (Count						
Source ID								
Source Sever	ity		\sim					
Expand								
Applicable Co	mputers							

The report is updated in the Content section to reflect the modified settings.

_11) Using the **scroll bar** at the bottom of the **Firefox** browser, scroll to the right side of the report and locate the **Computer** column. Hover over the **Computer** column and when pointer changes to a **four way arrow** drag the **Computer** column to the left and place it beside the **Source Severity** column.

овідеіх Web	Reports					Search Comp	uters
O BIOLIX VVEL	Reports					ortsadmin :: Pre	ferences
Explore Data	Report List	Administration					Version
Computers Co	ontent Actions Op	erators Unmanag	ed Assets Custom	1			
Critical Patch Cor	npliance Rep	ort (Window	's)*	Export to CSV ::	Printable Version ::	Save Report	Save Re
● Filter						Save Filter -	Load Filte
Charts						A	dd Historic
 Content 							
Edit Columns - Sort -					_		
Progress	Download Size	Source ID V	Source Severity	Computer	Applicable Co	omputer Coun	t Nar

_12) Scroll up to the **Filter** section at the top of the report. Expand the Filter section if required and review the existing Filter.

The current filter is made up of 6 conditions that all must match to be included in the report. These filters are:

- **Content Type is Fixlet**: Consider only Fixlets and exclude tasks.
- **Content Visibility is Visible**: Return only Fixlets that are not globally hidden.
- **Content Applicable Computer Count greater than 0**: This condition says that for a Fixlet to be return it must be applicable to 1 or more endpoints.
- Site is Patches for Windows: Only return Fixlets that exist in the Patches for Windows external Site
- Content Source Severity contains Critical: Only return Fixlets whose severity is defined as Critical
- **Content Source ID contains Q or contains KB:** This is a complex filter and it returns only the Fixlets where the Source ID field contains either the string Q or KB.
- __13) Modify the Source Severity filter as follows:

__a) Click add clause located to the right of the string Critical in the existing filter. A new filter clause opens.

___b) Verify that **contains** is set in the drop-down box.

____c) Enter **Important** in the text box.

and	Content v	Source Severity v		contains v)	Critical	×	¢.
			or	contains v		Important	×	add clause

___14) Click **Apply Filter** in the lower-right of the **Filter** section. The generated report in the Content section is updated to reflect the data that is represented by the new filter.

____15) Review the changes to the report in the **Content** section.

____16) Click the **BigFix logo** in the upper-left portion of the **Web Reports** page to return to the home page.

This completes the lab exercise.

Exercise 30: Creating a New Report from an Existing Report

In this exercise, you make changes to an existing report and save it as a custom report.

1) Switch to the **BESFNDWiNROOT** virtual machine and return to the **Firefox** browser. If the Web Reports session has timed out, you can login as **webreportsadmin** with a password of **B1gfixrocks**.

_____2) Click **Report List**. A list of existing reports is displayed.

_____3) Click on the **link** for the **Critical Patch Compliance Report (Windows)** report. The selected report opens in the Firefox browser.

____4) Expand the **Filter** section in the upper-left portion of the report page.

____5) Locate the **Source Severity** condition and change the value from **Critical** to **Important.**

_____6) Click the plus (+) icon located to the right of the **Source Severity** condition. A new filter condition row opens.

ort (Win	dows)*	Export to CSV :: F	Printable Version :: add clause	Save Filter -	Save Report A Load Filter - Clea
	lis v) Fixlet	v			Load Filter - Cle
	is V Fixlet	v]	and aloung		
	is v Fixlet	~	add alauraa		
			aud clause	- +	
~]	is v Visible	~)	add clause	- +	
unt 🗸	greater than v) 0		add clause	- +	
	is Patches for Windows	V	add clause	- +	
•]	contains v Important		add clause	- +	
~	contains v Q	×		- +	
L	v)	is Patches for Windows Contains Contains Q	is Patches for Windows v contains v contains v contains	is Patches for Windows add clause v contains Important add clause v contains Q X	is Patches for Windows add clause v contains Important add clause - v contains Q

_7) Define the new Filter condition as follows:

Content Name does not contain S

Superseded

and	Content	Source Severity	~	contains v Important	add	i clause - +
and	Content	✓ Name	~	does not contain 🗸 Superseded	add	i clause - +

_8) Click **Apply Filter** in the lower-right portion of the **Filter** section. The report updates to reflect the data returned by the new filter conditions.

Progress		Source ID 👽	Source Severity	Applicable Computer Count	Remediated Computer Count	Name
	0%	KB5008879	Important	1	0	MS22-JAN: Cum
	0%	KB4535680	Important	1	0	MS21-JAN: Secu
	0%	KB4505219	Important	1	0	MS19-JUL: Secu
	50%	KB3125869	Important	1	1	3125869: Vulne

_9) Click **Save Report As** located in the upper-right portion of the report page. The Save Report window opens.

_10) Enter **Important Patch Compliance Report (Windows)** in the report name field. Click **Save**. The report is saved and the Save Report window closes.

Save F	leport	×
		t (Windows)
	Save	Cancel

__11) Click **Report List**. A list of existing reports is displayed.

_12) Select the **webreportsadmin** option in the **Filter by Author** section on the left side of the **Report List** page. The list of reports on the Report List page is filtered to show only those that are authored by the webreportsadmin user.

Explore Data	Re	port List Administration					Version:
Import report							
Only show starred		el 🕶 Delete Search Reports					
ilter by Label Find labels	Selec	t All, None Name	- Labels	Author	Visibility	Scheduled	Last Modified
		☆ Fixlet Compliance by Computer Group (v2.0)		webreportsadmin	Public v	No	8:26 am
BigFix Management Patch Management		🛊 Fixlet Compliance by Content (v2.0)		webreportsadmin	Public v	No	8:27 am
Systems Lifecycle		🕸 Important Patch Compliance Report (Windows)		webreportsadmin	Private v	No	12:02 pm
		😫 Schedulable Compliance by Content Template		webreportsadmin	Public ~	No	8:25 am
		🔅 Schedulable Fixlet Compliance by Computer Template		webreportsadmin	Public v	No	11:53 am

____13) Locate the newly created report in the filtered list of reports. Select **Public** from the drop-down in the **Visibility** column to make the new report available to all Web Reports users.

This completes the exercise.

Exercise 31: Adding a Web Reports Role and User

In this exercise you create a Web Reports role that is based on the Console permissions for the testuser that was created in a previous exercise. You then create a Web Reports user and assign the new role to that user.

1) Switch to the BESFNDWINROOT virtual machine and return to the Firefox browser. If the Web Reports session has timed out, you can login as webreportsadmin with a password of B1gfixrocks.

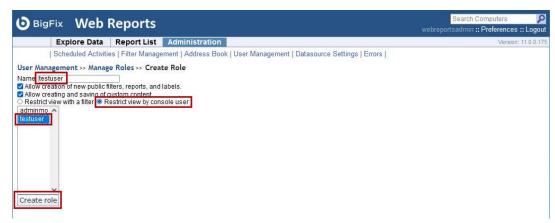
_____2) Click **Administration** at the top of the **Web Reports** page. The Administration page opens.

____3) Click User Management > Manage roles. The User Management >> Roles page opens.

() F	BigFix Web	Reports				Search Computers
0		Reports				webreportsadmin :: Preferences :: Logou
	Explore Data	Report List	Administra	tion	23.1	Version: 11.0.0.17
-	Scheduled Activi Management e user - LDAP Permissi	12			ement Datasource Set	Settings Errors
	ign roles 🛪 🛛 Delete	2				
Selec	t: All, None	me As	signed roles	Account Type		
		a management and the second	ministrator	Local		

_4) Click **Create role** in the upper-left portion of the **Roles** page. The Create Role page opens.

- ____5) Define the new role as follows:
 - ____a) Enter **testuser** in the **Name** field.
 - ____b) Select the **Restrict view by console user** option. A list of existing Console users is displayed.
 - ____c) Select **testuser** from the list of users.
 - ____d) Click Create role.



The Roles page opens and the new testuser role is now displayed in the list of existing roles.

	Explore	e Data	Report Lis	t Administ	ration		
Scheduled Activities Filter Management Addre							
Succe	ssfully created r	ole "testus	er".				
ser A	Aanagement	>> Roles					
Create	role						
Dele	te						
Select	: All, None						
	Name 🔺	Туре	# Users	# Groups			
	Administrator	Built-in	1	0			
_	Normal	Built-in	0	0			
	Read-only	Built-in	0	0			

____6) Select User Management > Create user. The Create User page opens

В ІСІ	∎ix We	eb Report	ts		
					web
	Explore D	ata 🛛 Report L	ist Administrat	tion	
	Scheduled A	ctivities Filter Ma	anagement Address	Book User Manage	ment Datasource Settings Errors
User Man	agement				
Create use	LDAP Permi	ssions - Manage rol	es - Global user options	S	
Assign re	oles 🔻 🛛 Dele	te			
Select: All,	None				
Lo	gin 🔺	Name	Assigned roles	Account Type	
wel	preportsadmin	webreportsadmin	Administrator	Local	

- ____7) Enter the following information to define the new user:
- ____a) Full name: testuser
- ____b) User logon name: testuser
- ____c) Password: B1gfixrocks
- ____d) Confirm password: B1gfixrocks
- ____e) Role: Select **testuser** from the drop-down box.

	Veb I	Reports	
Explore	e Data	Report List	Administration
Schedule	ed Activitie	es Filter Manag	ement Address Book Use
User Management	>> Creat	te User	
Full name:	testuser		
User logon name:	testuser		
Password:	•••••	••••	
Confirm password:	•••••	•••••	
Role:	testuser	✓ Create ne	ew role
	Create	user	

____8) Click Create user. The User Management page opens and testuser is now displayed in the list of defined Web Reports users.

BIGFIX W	eb Repor	ts		
Explore D	ata Report L	ist Administrat	ion	
Scheduled /	Activities Filter Ma	anagement Address	Book U	ser Manageme
Successfully created use				
User Management				
Create user - LDAP Perm	issions - Manage rol	es - Global user options	3	
Assign roles - Dele	te			
Select: All, None				
Login 🔺	Name	Assigned roles	Accour	nt Type
testuser	testuser	testuser	Local	
webreportsadmin	webreportsadmin	Administrator	Local	

____9) Click **Logout** in the upper-right portion of the Web Report page. The Web Reports Login page is displayed.

___10) Enter **testuser** as the **Username** with a **Password** of **B1gfixrocks**. Click **Login**. The Web Reports domain page opens.

_11) Click **Explore Data**. The Computers report is displayed. Observe that only the **BESFNDCENTOS** computer is visible in the report. This is because the **testuser** account is restricted by the permissions of the **testuser Console** account.

BigFix Web Reports			Search Computers
Explore Data Report List Administration			Version: 11.0.0.17
Content Actions Operators Unmanaged Assets Custo	m		
			Export to CSV :: Printable Version :: Save Report
E Filter			Save Filter - Load Filter - Clear
Results match all conditions.			
Computer V Search Properties			- +
			Apply Filter
Charts			Add Chart
Computers			
Edit Columns - Sort -			
Edit Columns Sort Computer Name IP Address OS	CPU	Last Report Time	

_12) Click Logout in the upper-right portion of the Web Reports page. The Web Reports Login page opens.

This completes the exercise.

Exercise 32: Configuring an email server and defining contacts.

In this exercise, you configure an email server for use with Web Reports. You also create contacts that can be used when configuring scheduled activities to automatically receive emails containing reports.



Note: The settings discussed in this exercise are not intended for a production environment but are included here for training purposes only. The mail server in this lab communicates only with the local domain. You won't be able to send and receive mail outside this domain. If you wish to perform this configuration in your production environment, you can discuss the requirements with your email team to get the information that is required to integrate BigFix with your email servers.

___1) Switch to the **BESFNDWiNROOT** virtual machine and return to the **Firefox** browser. If the Web Reports session has timed out, you can login as **webreportsadmin** with a password of **B1gfixrocks**.

_____2) Click **Administration** at the top of the **Web Reports** page. The Administration page opens.

_3) Click **Address Book**. A message is displayed that warns you that you are unable to send email until an outgoing email server is defined.

Not Moh Donor	**	
BIGFIX Web Repor	ts	
Explore Data Report L	ist Administration	
Scheduled Activities Filter M	anagement Address Book	User Management Datasource Settings Erro
eb reports will be unable to send email unti	an outgoing email server is se	et Set the outgoing email server.

____4) Click the **Set the outgoing email server** link. The Email Server Settings page is displayed.

____5) Enter the following information on the **Email Server Settings** form, then click **Test**.

- ____a) Authentication mode: Select **Password based** from the drop-down
- ____b) Email SMTP server: besfndwinroot.bigfix.demo.com
- ____c) Email SMTP server username (optional): tecuser@bigfix.demo.com
- ____d) Email SMTP server password (optional): bigfixrocks
- ____e) Email SMTP server port: 587
- ____f) Upgrade SMTP to TLS: Verify that this option is **Unchecked**.

О ві бі	FIX Web	Repo	orts	
	Explore Data	Repo	rt List	Administration
	Scheduled Activiti	es Filte	r Manag	ement Address Book
	Sook >> Email Ser	_	tings	
Email SMTF	server:	sfn	dwinroot.	bigfix.demo.com
Email SMTF	o server username (op	tional) teo	cuser@bi	gfix.demo.com
Email SMTF	o server password (op	tional)		•••
Email SMTF	o server port:	58	7	
Upgrade SM	TP to TLS:			
Save Tes	st			

The Send Test Email window opens.

_6) Enter tecuser@bigfix.demo.com in the Send a test email to text box and click Send.

Send Test Email		×
Send a test email to:	tecuse	r@bigfix.demo.com
Email SMTP server:	besfnd	winroot.bigfix.demo.c
Email SMTP username (optional)	tecuse	r@bigfix.demo.com
Email SMTP password (optional):		••••
Email SMTP server port:	587	
Upgrade SMTP to TLS:		
		Send Cancel

The Email Server Settings window is displayed.

_7) Double-click the **Mozilla Thunderbird** icon on the **Windows Desktop**. Mozilla Thunderbird opens and the test message is displayed in the interface.

Inbox	m Thu	underbir	d Priva	icy No	otice X				—		×	
🖵 Get Messages 👻 🖋 Write	Chat	🛃 Add	ress Bo	ok	🟷 Tag 🗸	70)uic	k Filter Search < Ctrl+K>			≡	
∨ 🗠 tecuser@bigfix.demo.com	\$ A	· ☆		0	0	PF	ilter	r these messages < Ctrl+Shift+K>				
🕞 Inbox (1)	5 4 0					_		- · · ·				
🕅 Trash	ኑ 🖈 🛈	Subj	ect				90	Correspondents		Date		₽₽
✓ 🛅 Local Folders	\$	Web	Repo	rts Te	st Email		•	noreply@hcl.com	9	9:13 AM		
🔟 Trash												
🔁 Outbox												

____8) Close **Mozilla Thunderbird** and return to **Web Reports** in the **Firefox** browser.

9) Click **Save** at the bottom of the **Email Server Settings** window. The Address Book page is displayed.

____10) Click **Add contact**. The Add Contact window opens.

____11) Enter the following information in the **Add Contact** window, then click **Add**:

____a) Name: tecuser

____b) E-mail:tecuser@bigfix.demo.com

Add Co	ntact		×
Name E-mail	tecuser ser@bigfix.de	emo.com	
		Add	Cancel

Note: Contacts that are added to BigFix Web Reports are stored according to the user who created them. Each Web Reports Administrator has their own contacts. You must pay attention to the account that you are logged in as or you might not see the contacts that you were expecting.

This completes the exercise.

Exercise 33: Creating Scheduled Activities in Web Reports

Web Reports allows you to run reports at a given time or when certain conditions that you have defined are met. Report results from a scheduled activity can be emailed or archived for later viewing.

In this exercise, you create a scheduled activity to generate and email a report.

___1) Switch to the **BESFNDWINROOT** virtual machine and return to the **Firefox** browser. If the Web Reports session has timed out, you can login as **webreportsadmin** with a password of **B1gfixrocks**.

2) Click Administration at the top of the Web Reports page. The Administration page opens.

3) Click **Scheduled Activities**. The Scheduled Activities page opens.

_____4) Click Create schedule activity.

О вісі	FIX W	eb Rep	oorts			
	Explore D	Data Rep	oort List	Administ	ration	
	Scheduled	Activities Fi	lter Manag	ement Addre	ess Book User M	lanagement
Schedule	d Activities					
Create sch	eduled activity					
Edit E	Enable Dis	able Dele	te			
Select: All,	None					
Nan	ne 🔺 ID	Creator	Туре	Options	Start Time	Expire Ti
No record	s found.					

The Scheduled Activity page opens.

_5) Enter the following information at the top of the page to define the schedule:

_____a) Start time: Keep the date but enter a time that is at least **10 minutes** later than the current time.

____b) Expire time: Accept the default

____c) Report language: Accept the default value **English**.

_6) In the Activity Report section of the page, set the following options:

____a) Type: Verify that **Report** is selected from the first drop-down box.

___b) Action List: Select **Critical Patch Compliance Report (Windows) (Patches for Windows)** from the drop-down box.

_c) Format: Verify that the **HTML** option is selected.

Activity Report: Type: Report
Critical Patch Compliance Report (Windows) (Patches for Windows)
Format:

____7) In the Activity Triggers section of the page, set the following options:

_____a) Select the **Generate report every option** and set the value to **2 Hours**.

_b) Verify that the **Send email/store archive only when report has changed** option is selected at the bottom of the **Activity Triggers** section.

Activity Triggers:
OGenerate report every: 2 Hours ▼ OGenerate report on every refresh (currently every 15 seconds) OGenerate report once
Match Relevance conditions
[Test] ©Generate report when relevance is true OGenerate report when relevance becomes true OGenerate report when answer changes
Send email/store archive only when report has changed

- ____8) In the Activity Actions section of the page, set the following options:
- ____a) Place a **check** beside the **Email** option.
- ____b) Select **tecuser** in the first box then click the >> to move that user to the **To** box.
- ____c) Enter webreportsadmin@bigfix.demo.com in the From field.
- _____d) Enter Critical Windows Patch Report in the Subject field.
- _____e) Enter Outstanding Critical Windows Patches in the Text field.
- ____f) Verify that the **Include report output** option is selected.

Activity Actions:
Email [Edit]
teauser <teauser@bigfix.demo.com> A teauser@bigfix.demo.com</teauser@bigfix.demo.com>
From: webreportsadmin@bigfix.demo.com
Subject Critical Windows Patch Report
Outstanding Critical Windows Patches
Text
I EXI.
Cinclude report output
Include link to current report
Limit the number of archives stored
Only keep archives for Days
Limit archives to MB
Only keep entries
Customized Executable [7]
Executable
Arguments:

SubmitCancel

_9) Scroll to the bottom of the page and click **Submit**. The Scheduled Activities page opens and the newly scheduled report activity is shown in the list.

0	BigFix Web Reports					Search webreportsadmin	Computers :: Preferences ::	2 Logout
	Explore Data Report List Administration	on					Version: 1	1.0.0.175
	Scheduled Activities Filter Management Address E luled Activities e scheduled activity	300k	User Management	Datasource \$	Settings Erro	irs		
Edit	Enable Disable Delete		2					
	Name -	ID	Creator	Туре	Options	Start Time	Expire Time	Nex
	Critical Patch Compliance Report (Windows) (Patches for Windows)	1	webreportsadmin	Stored report	Email	9/26/2023 12:28 PM	None	9/26/

Note: As an optional activity, you wait until after the report generation time has passed and then verify that the report email was sent. You do this my double-clicking the Mozilla Thunderbird icon on the desktop and viewing the Inbox of the tecuser account.

This completes the exercise.

BigFix Foundation – Asset Discovery Student exercises

Overview

You can use BigFix Asset Discovery to help determine the following in your environment:

- Identify network assets, including devices such as routers, printers, switches, wireless access point, or anything with an IP address that is connected to the network.
- Identify unmanaged and rogue computers including computers that have had the BigFix agent disabled, or other rogue computers that are not managed by the company.

With this information, important license inventory questions can be answered regarding what kind of device it is, when it was installed and where it is located. Additionally, security questions and concerns can be answered regarding unauthorized employee computers, wireless units or rogue devices that are connected to the network.

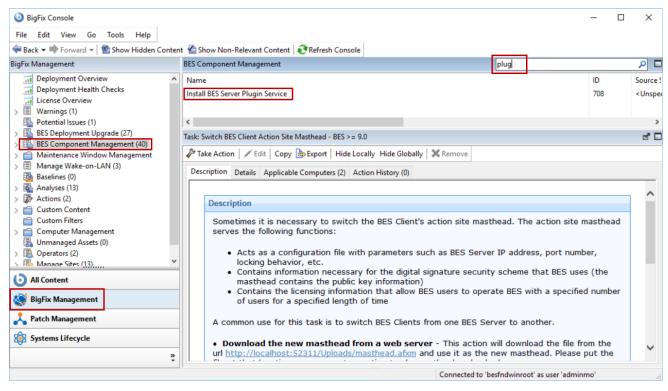
In these exercises, you setup and configure BigFix Asset Discovery. You then perform network scans with Asset Discovery to attempt to identify unknown devices on the network.

Exercise 34: Configuring Asset Discovery

In this exercise, you take the required steps to setup and configure Asset Discovery.

- _____1) Switch to the **BESFNDWINROOT** virtual machine and return to the BigFix **Console**.
- _____2) Click the **BigFix Management** domain in the lower-left portion of **Console**. The navigation pane updates to display only the content that is associated with the BigFix Management domain.
- _____3) Click **BES Component Management** in the navigation pane. The list area updates to show a list of Fixlets and Tasks.

_4) Enter **plug** in the **live search** field in the upper-right portion of the list area. The list of Fixlets and Tasks in the list area is filtered to show only those that contain that string.



_5) Locate and select the **Install BES Server Plugin Service** task in the list area. The details for the selected Task are shown in the work area below.

_____6) Click **Take Action**. The Take Action window opens.

____7) Select the **Target** tab and then select **BESFNDWINROOT** from the list of applicable target computers.

_____8) Click **OK** to initiate the action.

9) Monitor the status of the action and wait for it to change to **Completed** before continuing.

__10) Click the **Systems Lifecycle** domain in the lower-left portion of the **Console**. The Navigation pane updates to show only the content that is associated with the Systems Lifecycle domain.

__11) In the navigation pane, expand the Asset Discovery node and then select the Setup node. The list area is updated to show a list of Fixlets and Tasks.

__12) Select the Install Nmap Asset Discovery Import Service – BES >= 7.0 task in the list area. The details for the selected task are shown in the work area below.

_13) Click **Take Action**. Then choose the **first** option from the list of available actions. The Take Action window opens.

ake Action *	🖋 Edit Copy 🎰 Export Hide Locally Hide Globally 🗙 Remove		
Click here to	stall the Nmap Asset Discovery Import Service on the BES Server. (Recom.,		
Click here to	stall the Nmap Asset Discovery Import Service on the BES Server and speci		
Click here for	nore information about BES Asset Discovery.		
Descriptio			
compute	ES Server. After you designate client machines to serve as "Scan Points" and run network so s, the results of each scan will be uploaded to the BES Server and the Import Service will ma to the BES Console.		
databas	ou have previously configured your BES NMAP Unmanaged Asset Importer to connect to a re , you may need to reconfigure the service settings following this upgrade. To configure the B ed Asset Importer to work with remote databases, please see the following <u>KB Article</u>	ES Nmap	

_14) Select the **Target** tab and then select **BESFNDWINROOT** from the list of applicable target computers.

____15) Click **OK** to initiate the action.

16) Monitor the status of the action and wait for it to change to **Completed** before continuing.

__17) Return to the **Asset Discovery > Setup** node in the navigation pane. The list area is updated to show a list of Fixlets and Tasks.

_18) Select the **Designate Nmap Scan Point – Version 7.70** task from the list of Fixlets and Tasks. The details for the select task are shown in the work are below.

_19) Click **Take Action** then choose the **first** option from the list of available actions. The Take Action window opens.

Tasl	c Designate Nmap Scan Point - Version 7.70		2
17	Take Action 🔹 🥒 Edit Copy 🎰 Export Hide Locally Hide Glo	bally X Remove	
	Click here to designate computers as Nmap scan points.		
	Click here for more information about Nmap.		
	Click here to view the Info-Zip license.		^
	Click here for more information about BES Asset Discovery.		
	This Task will deploy Nmap and Npcap to targeted machin completes, you will be able to initiate network scans to se		

__20) Select the **Target** tab. While holding down the **Ctrl** key, select both **BESFNDWIN10** and **BESFNDWINROOT** from the list of available targets.

____21) Click **OK** to initiate the action.

22) Monitor the status of the action and wait for it to change to **Completed** before continuing.

23) Return to the **navigation pane** for the **Systems Lifecycle** domain.

___24) Expand the Asset Discovery > Manage Scanning nodes and then select the Scan Point Statistics node. A list of analyses that are associated with Asset Discovery are shown in the list area. _25) Verify that the **Show Non-Relevant Content** button is toggled on. This ensures that all of the analyses are visible in the list area. Verify that the **status** of the **all** the analyses are shown as **Activated Globally**.

BigFix Console				— C	⊐ ×		
File Edit View Go Tools Help			1				
🖛 Back 🔻 📫 Forward 👻 嶜 Show Hidden C	Content 🏠 Show Non-Re	levant Content 💦 Refresh Console					
Systems Lifecycle	Scan Point Statistics		Search Scan Point Statistics 🔎				
Systems Lifecycle Domain	Status	Name	Site	Applicable Computer C	Activated		
✓ 🔄 Asset Discovery	Activated Globally	Nmap Asset Discovery Import Ser	BES Asset Discovery	1	adminmo		
Setup (11)	Activated Globally	Nmap Scan Point Statistics - Linux	BES Asset Discovery	0	adminmo		
Deployment (20) Ill Manage Scanning (8)	Activated Globally	Nmap Scan Point Statistics - Win	BES Asset Discovery	2	adminmo		
BigFix Asset Discovery Nmap Sci	Activated Globally	Scanpoint Cleanup Configuration	BES Asset Discovery	2	adminmo		
Custom Scan Tasks (0)							
Scans (4)	Analysis: Nmap Asset Discovery Import Service Settings Image: Setting Se						
> Scan Point Statistics (4)							
Unmanaged Assets (0)							
inventory Management Software Distribution							
> All Systems Lifecycle							
	Description						
	Description						
<	This analysis contains information about your server which runs the Asset Discovery Import Service.						
All Content	Service.						
	After activation, you will see the following properties						
SigFix Management							
🙏 Patch Management	Install	Time					
Systems Lifecycle	Service Interval (in seconds)						
BigFix Client Listen Port							
	1		Connected to 'besfndwin	root' as user 'adminmo'			

Note: If the status of any of the analyses is shown as **Not Activated**, make sure to activate them before continuing. You can select all the **Not Activated** analyses, then **right-click** and select **Activate** from the **Context** menu.

___26) Click Show Non-Relevant Content at the top of the Console to toggle it off.

This completes the exercise.

Exercise 35: Running an Nmap Scan

In this exercise, you run an Nmap scan to attempt to discover any endpoints on the local subnet that are not currently running the BigFix agent.

_1) Switch to the **BESFNDWINROOT** virtual machine and return to the BigFix **Console**.

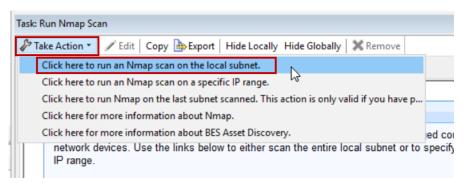
2) Click the **Systems Lifecycle** domain in the lower-left portion of **Console**. The navigation pane above updates to display only the content that is associated with the Systems Lifecycle domain.

_____3) Expand the Asset Discovery node and click the Setup node. A list of Fixlets and Tasks is displayed in the list area.

_____4) Select the **Run Nmap Scan** task from the list of Fixlets and Tasks in the list area. The details for the selected task are shown in the work area below.

Note: It might take several minutes for the Run Nmap Scan Task to become relevant after designating the Windows endpoints as scanpoints.

_5) Click **Take Action** and select the **first** action in the list of available actions. The Take Action window opens.



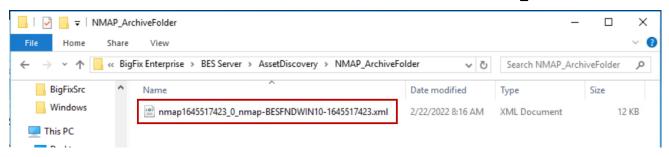
_____6) Click the **Target** tab and select **BESFNDWIN10** from the list of available targets.

____7) Click **OK** to initiate the action.

____8) Monitor the status of the action until it changes to **Completed**.

Tip: It will take several minutes for the scan to complete. Once the scan is completed an .XML of the scan results is created on the BigFix Root server. This file is imported by the Asset Discovery Import service which runs every 5 minutes by default. It might take several minutes once the scan is complete for the .XML file to appear. You can check the following folder for the .XML file:

C:\Program Files (x86)\BigFix Enterprise\BES Server\AssetDiscovery\NMAP ArchiveFolder



As you can see, the .XML file that is imported into BigFix contains the name of the **scanpoint** that was used to perform the scan. Because all the clients in the lab environment currently have the BigFix agent installed and running, there will be no unmanaged assets to import. If endpoints had been discovered, they would appear in the **Unmanaged Assets** node in the Console. You can review the .XML file to see the type of information that is discovered during the scan.

In the next exercise, we change the configuration of the Asset Discovery Import service to allow importing of discovered devices that are currently running the agent and reinitiate the scan.

Exercise 36: Modifying the Asset Discovery Settings

Our lab environment is fully NAT'd and there is a BigFix agent on every computer, so no assets were discovered during the last scan. The configuration of the Asset Discovery Import service can be modified so that all discovered systems, including those currently running the BigFix agent are imported.

In this exercise, you modify the Asset Discovery settings so that know clients are also imported.

1) Switch to the **BESFNDWINROOT** virtual machine and return to the BigFix **Console**.

2) Click the **Systems Lifecycle** domain in the lower-left portion of **Console**. The navigation pane above updates to display only the content that is associated with the BigFix Management domain.

_____3) Expand the Asset Discovery node and select the **Deployment** node. A list of Fixlets and Tasks is displayed in the list area.

_____4) Select the **Change Nmap Asset Discovery Server Settings** task in the list area. The details for the selected task are shown in the work area below.

_____5) Click Take Action. The Action Parameter window opens.

_____6) Modify the value of the parameter in the **Action Parameter** window from **1** to **0**.

Action Parameter	×
Please enter 1 to exclude BES Clients. Please enter 0 to include BES Clients.	^
	\sim
0	
Ok Cancel	

_____7) Click **OK**. The Take Action window opens.

_____8) Click the **Target** tab and select **BESFNDWINROOT** from the list of available targets.

_____9) Click **OK** to initiate the action.

10) Monitor the status of the action and wait for it to change to **Completed** before continuing.

This completes the exercises.

Exercise 37: Rescanning the Local Subnet

In this exercise, you initiate another scan of the local subnet to see the results of changing the Asset Discovery settings.

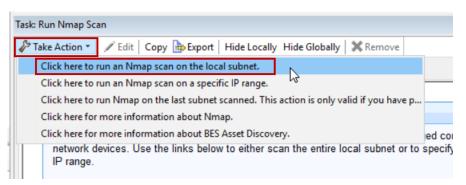
1) Switch to the **BESFNDWINROOT** virtual machine and return to the BigFix **Console**.

2) Click the **Systems Lifecycle** domain in the lower-left portion of **Console**. The navigation pane above updates to display only the content that is associated with the Systems Lifecycle domain.

3) Expand the Asset Discovery > Setup nodes. A list of Fixlets and Tasks is displayed in the list area.

4) Select the **Run Nmap Sc**an task from the list of Fixlets and Tasks in the list area. The details for the selected task are shown in the work area below.

_5) Click **Take Action** and select the first action in the list of available actions. The Take Action window opens.



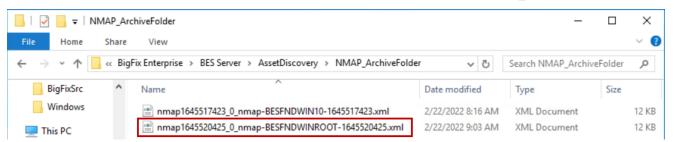
_____6) Click the **Target** tab and select **BESFNDWINROOT** from the list of available targets.

_____7) Click **OK** to initiate the action.

____8) Monitor the status of the action until it changes to **Completed**.

Tip: It will take several minutes for the scan to complete. Once the scan is completed an .XML of the scan results is created on the BigFix Root server. This file is imported by the Asset Discovery Import service which runs every 5 minutes by default. It might take several minutes once the scan is complete for the .XML file to appear. You can check the following folder for the .XML file:

C:\Program Files (x86)\BigFix Enterprise\BES Server\AssetDiscovery\NMAP_ArchiveFolder



As you can see, the .XML file that is imported into BigFix contains the name of the **scanpoint** that was used to perform the scan. You can review the .XML file to see the type of information that is discovered during the scan.

_9) Return to the **Console**. Expand the **Asset Discovery** node then select the **Unmanaged Assets** node. A list of discovered assets is shown in the list area. Note that the scanpoint that was targeted for the action is excluded from the list of discovered assets.

 BigFix Console File Edit View Go Tools Help 						- 🗆	×
年 Back 🔻 ា Forward 👻 🗟 Show Hidden G	Content Show Non-Relevan	t Content 🔁	Refresh Console				
Systems Lifecycle	Unmanaged Assets			Search Unmana	ged Assets	\$	
📊 Systems Lifecycle Domain	Hostname	IP Address	MAC Address	OS	OS Accur	Device Type	
✓	besfndwin10.example.com	10.0.0.2	00:50:56:05:BA:4E	Microsoft Windows Long	91%	general purpo	se
Setup (2) Deployment (5)	gw.example.com	10.0.0.254	A0:B9:ED:FF:FF:98	Linux 3.11 - 4.1	100%	general purpo	se
 Deployment (5) Manage Scanning (4) 	besfndcentos.example.com	10.0.0.3	00:50:56:22:2F:7D	Linux 3.2 - 4.9	100%	general purpo	se
BigFix Asset Discovery Nmap So							_
Custom Scan Tasks (0)	<						
Scans (1)	Unmanaged Asset: 00-1 (NMA	AP)					2
Scan Point Statistics (3)							_
> 🛃 Unmanaged Assets (3)							~
> Inventory Management > Software Distribution	▼ Filterable Prope	rties					
All Systems Lifecycle							
	Scan Point		BESFNDWINROOT				
	Hostname		besfndwin10.examp	le.com			
<>	Last Scan Time (Se	rver Time)	2/22/2022 9:02:27 A	M			

BigFix Foundation – Software Distribution Labs

Student exercises

Overview

BigFix for Software Distribution is part of the Lifecycle Management suite and provides a consolidated, comprehensive solution to quickly deploy software throughout a network from a centralized location. This solution delivers cost-effective operational control and visibility for your software delivery and installation process.

Exercise 38 – Enabling the Software Distribution Site

Before you can use Software Distribution, you must first enable the external site. This site might have already been enabled in previous exercises.

In this lab exercise, you confirm that the Software Distribution external site has been enabled, and that All Computers have been subscribed to the site.

____1) Switch to the **BESFNDWINROOT** virtual machine and return to the BigFix **Console**.

2) Click the **BigFix Management** domain in the lower-left portion of **Console**. The navigation pane above updates to display only the content that is associated with the BigFix Management domain.

_____3) Click **License Overview** in the navigation pane. The License Overview dashboard opens in the right portion of the Console.

4) Select the **LIFECYCLE** tab in the **BigFix License Overview** dashboard. The external site list associated with the Lifecycle solution is displayed in the dashboard.

			Cost Opuble, Elected	22 11:57:12 AM	C 🖶
८ २४	LIFECYCLE	PCI DSS SEC	URITY AND COMPLIANCE	BIGFIX LABS	3
This license co	ntains the following	entitlements for	Lifecycle		-
Licensed for:		5 (Client)			
License Type: Expiration Dat		Term 12/31/2025	VALID		
Available Sites					
Enabled	↓ Sites				Subscribed

_5) Scroll down in the dashboard and located the **Software Distribution** site. Verify that the site is **Enabled**. If the site has not yet been enabled, click the **ENABLE** link to the left of the site name.

Big	Fix Licens	e Overview	Last Update: 2/22/202	2 11:57:12 AM 🧿 C	•
< २	Y	LIFECYCLE	PCI DSS SECURITY AND COMPLIANCE	BIGFIX LABS	
	ENABLED	Patches	s for CentOS7 Plugin R2	1	,
	ENABLED	Patches	s for RHEL 7	0	
	ENABLED	Patches	s for Windows	2	
	ENABLED	Patchin	g Support	<u>3</u>	
	ENABLED	<u>Softwar</u>	re Distribution	<u>3</u>	
	ENABLED	Update	s for Windows Applications	2	
	ENABLE	Advanc	ed Patching		
	ENABLE	BigFix I	nsights		1

____6) Click the **Software Distribution** site name link. The details for the external site are displayed.

__7) Click the **Computer Subscriptions** tab and verify that the **All Computers** option is selected. Select the **All Computers** option if it has not already been selected.

External Site: Software Distribution	2
Save Changes Discard Changes Gather Add Files X Remove	
Details Computer Subscriptions Operator Permissions Role Permissions	
The following computers will be subscribed to this site: All computers No computers	
Computers which match the condition below	
Computer Name \checkmark contains \checkmark	- +

Note: If you make any changes to the Computer Subscriptions, be sure and click the **Save Changes** button in the upper-right portion of the Software Distribution pane.

Exercise 39 – Activating the Software Distribution Analyses

In this exercise, you activate the analyses that are associated with the Software Distribution external site.

1) Switch to the **BESFNDWINROOT** virtual machine and return to the BigFix **Console**.

__2) Click the **Systems Lifecycle** domain in the lower-left portion of **Console**. The navigation pane updates to display only the content that is associated with the Systems Lifecycle domain.

__3) Expand the **Software Distribution** node and select the **Analyses** node. A list of analyses that are associated with the Software Distribution site are displayed in the list pane in the upper-right portion of the Console.

BigFix Console				-	
File Edit View Go Tools Help	A ar N .				
Systems Lifecycle	Analyses	elevant Content	Search Analyses		₽ 🗆
Systems Lifecycle Domain	Status	Name	Site	Angliashia	
> Asset Discovery			Site Software Distribution	Applicable	Activated By
> 🝵 Inventory Management	Activated Globally Activated Globally	Active Directory Security Groups and Orga Installed Packages (Linux/Unix)	Software Distribution	2	adminmo adminmo
 Software Distribution Analyses (3) 	Activated Globally	Software Distribution Deployment Results	Software Distribution	3	adminmo
Setup (2) Manage Software Distribution	<		4		>
Software Distribution Tasks (0)		y Security Groups and Organizational Units			2
Maintenance and Configuration F BigFix Self Service Application (5)		vate 🖉 Edit 🕞 Export Hide Locally Hide	Globally X Remove		
> 🚔 All Systems Lifecycle	Description Details	Results Applicable Computers (2)			
					~
<>	Description				
All Content		contains information about the Active			
🔇 BigFix Management	Organizatior	n Units to which the client computer an	d users of that computer	belong.	
📩 Patch Management		is analysis will aid in auto-completing t nal Units when applying Active Director			
😰 Systems Lifecycle		Packages dashboard.	, , , , , ,		
~ *		tion of this analysis is optional. The Ma vill continue to function properly even i			~
3 iter	ms in list, 1 selected.	Connect	ed to 'besfndwinroot' as user	'adminmo'	

__4) Verify that the status of each of the **Analyses** is **Activated Globally**. If any of the Analyses shows a status of Not Activated, then make sure to activate them before continuing.

Tip: You can select all the Analyses with a **Not Activated** status by selecting them while holding down the **Ctrl** key. Once selected, **right-click** and choose **Activate** from the context menu.

Exercise 40 – Registering the Download Plug-in for Software Distribution

The Manage Software Distribution Packages dashboard is a tool that is used to manage Software Distribution packages in the environment. Before using the dashboard, you must first register the download plug-in for Software Distribution. This plugin manages download requests from Software Distribution Tasks.

In this exercise, you register the download plug-in for Software Distribution.

_1) Switch to the **BESFNDWINROOT** virtual machine and return to the BigFix **Console**.

____2) Click the **Systems Lifecycle** domain in the lower-left portion of **Console**. The navigation pane updates to display only the content that is associated with the Systems Lifecycle domain.

__3) Expand the **Software Distribution** node and select the **Maintenance and Configuration Fixlets** node. The list area updates to show a list of Fixlets and Tasks that are associated with the Maintenance and Configurations Fixlets node.

BigFix Console	- 0	×
		^
File Edit View Go Tools Help		
年 Back 🔻 喇 Forward 👻 🖄 Show Hidden Content 🖀 Sho	w Non-Relevant Content 🛛 🧞 Refresh Console	
ystems Lifecycle Ma	intenance and Configuration Fixlets Search Maintenance and Configuration Fix	xlet 🔎 🚺
🔜 Systems Lifecycle Domain 🔥 🔥	ame	
> 🚔 Asset Discovery	gFix Server: Register Download Plug-in for Software Distribution	
> 💼 Inventory Management	,	
✓		
🚳 Analyses (4) > 📆 Setup (5)		
Manage Software Distribution		
Manage Software Distribution (Deprecated <		,
Software Distribution Tasks (0)	k: BigFix Server: Register Download Plug-in for Software Distribution	1
Maintenance and Configuration Fixlets (1)		
	* Take Action 🖉 Edit 🛛 Copy 🎰 Export 🛛 Hide Locally 🛛 Hide Globally 🛛 💥 Remove	
✓	Description Details Applicable Computers (1) Action History (0)	
 Fixlets and Tasks (23) Baselines (0) 		_
✓ Analyses (26) ✓		^
< >>	Description	
All Content	This task registers the download plug-in for Software Distribution on the BigFix	
All content	server. This plugin enables the server to handle download requests from Software Distribution Fixlets.	
🔇 BigFix Management	Software Distribution Fixiets.	
•	File Size: 1.97 MB	
Z Patch Management		
😥 Systems Lifecycle	Actions	
		\sim
* *	Click here to register the Software Distribution download plug-in	
	Connected to 'besfndwinroot' as user 'adminmo'	

___4) Select the BigFix Server: Register Download Plug-in for Software Distribution task from list area. The details for the selected task are shown in the work area below.

5) Click Take Action. The Take Action window opens.

_____6) Click the **Target** tab and select **BESFNDWINROOT** from the list of available targets.

_____7) Click **OK** to initiate the action.

_____8) Monitor the status of the action until it shows as **Completed** before continuing.

Exercise 41 – Changing default Software Package Settings

By default, packages cannot be edited by all console operators in the Manage Software Distribution Packages dashboard. This default behavior can be modified in the Manage Software Distribution Packages dashboard.

In this exercise, you access the Manage Software Distribution Packages dashboard and change the default settings to allow all operators to edit shared packages.

____1) Switch to the **BESFNDWINROOT** virtual machine and return to the BigFix **Console**.

2) Click the **Systems Lifecycle** domain in the lower-left portion of **Console**. The navigation pane updates to display only the content that is associated with the Systems Lifecycle domain.

_____3) Expand the **Software Distribution** node and select **Manage Software Distribution**. The Manage Software Distribution dashboard opens in the Console.

_____4) Click **Settings** in the upper-right portion of the dashboard. The Settings window opens.

5) Select the Allow all operators to edit "shared" software packages option. Click OK.

Settings		
Clear AMG Action Cache	Switch to the AMG view to enable cache clearing.	^
Allow all operators to edi	t "shared" software packages.	
Allow all operators to edi	t Application Management Groups.	
Enable Package Tagging		
* Note that the Tasks reference	d by Software Packages and Application Management Groups still obey	~

The Settings window closes, and you are returned to the Manage Software Distribution dashboard.

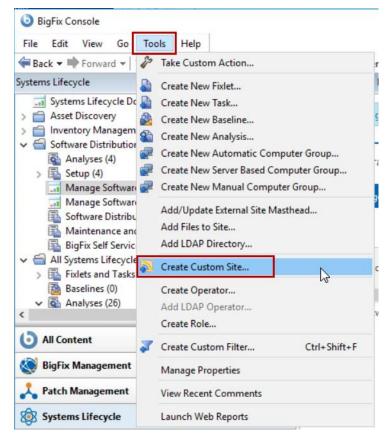
Note: The Console permissions that are associated with Software Package and Application Management Group tasks are still enforced.

Exercise 42 – Creating a Custom Site for Software Distribution

Creating custom sites to organize software distribution Tasks reduces the risk of decreased performance from abuse of the Master Action site. It also helps you control access to various Software Packages based on BigFix roles and permissions.

In this exercise, you create a custom site to store software packages.

- __1) Switch to the **BESFNDWINROOT** virtual machine and return to the BigFix **Console**.
- _____2) Select **Tools > Create Custom Site** from the menu at the top of the **Console**.



The Create Custom Site window opens.

3) Enter SWD as the site name and click OK.

Create Cu	tom Site		×
		e new Custom Site. Cus ed after they have been	tom
SWD			
	ОК	Cancel	

The Custom Site: SWD pane opens.

4) Click the **Computer Subscriptions** tab.

___5) Select the **All computers** option.

_6) Click the **Operator Permissions** tab.

__7) While holding the Ctrl key, select both users then click Writer from the list of available permissions. The Explicit Permissions column updates to show that both operators have Writer permission to the custom site.

Save Changes Discard Changes Gather	Add Files 🗙 Remove			
etails Computer Subscriptions Operator	Permissions Role Permissions			
Custom site owners are allowed to grant ot Readers are allowed to view and apply cont 	tent in a custom site.		_	
5			Rea	
Readers are allowed to view and apply cont	tent in a custom site. Permission: Own	er Writer Operator Ty	Rea LDAP Se	der None

_8) Click **Save Changes** in the upper-left portion of the **Custom Site** window.

This completes the exercise.

Exercise 43 – Using the Windows Software Distribution Wizard

The Windows Software Distribution Wizard steps you through the process of creating a Software Distribution deployment task. You can then Take Action on these Tasks to install software on managed endpoints.

In this exercise, you use the Windows Software Distribution Wizard to create a Task to install Google Chrome. You then Take Action on that task to deploy Chrome to a managed endpoint.

1) Switch to the **BESFNDWINROOT** virtual machine and return to the BigFix **Console**.

2) Click **Systems Lifecycle** in the lower-left portion of the **Console**. The navigation pane updates to show content that is related to the systems Lifecycle domain.

___3) Expand the All Systems Lifecycle > Wizards nodes in the navigation pane and then select Windows Software Distribution Wizard. The Windows Software Distribution Wizard opens in the Console.

_4) Replace <**Application Name>** with **Google Chrome**. Scroll to the bottom of the wizard and click **Next**.

Nelcome to the BES S	Software Distribution Wizard for Win	ndows.	
		s computers which have the BES Client installed. Upo you to deploy your application to BES Clients using the	
lote. This wizard will only n	rovide deployment and very basic packaging	of software. It is assumed that the application you dep	ploy will have
an installer that can be exec Specify the name of the appl	uted silently (if applicable) on local BES Clien lication you want to deploy. This is the name t	nt computers. that will appear in the Task tab in the BES Server (e.g.	Adobe Acrobat
an installer that can be exec Specify the name of the appl Reader 9.0):			Adobe Acrobat
an installer that can be exec			

The Source Files pane opens.

_5) Select the File option. Click Browse and select the ChromeSetup.exe file in the following directory:

C:\Users\Administrator\Desktop\BigFixSrc\Software Distribution\Google Chrome\

noose the source of the package to be deployed to the BES Clie	ent computers.	
Download from URL - Retrieve the package from the URL.		
http://		
 File - Select the package file. [C:\Users\Administrator\Desktop\BigFixSrc\Software Distribution\Google Ch 	prome\ChromeSetup ave	Browse
Folder - Select a package folder (a compressed archive will be created).		
C:\	В	Browse
Include Subfolders		
Note: The file(s) you select will be placed on the BES Server and a SHA1 checks		hing
purposes. If you would like to change the file(s) later, you will need to run this wiz	zaru ayam.	

_____6) Click **Next**. The Platforms pane is displayed.

_____7) Accept the default platforms and click **Next**. The Installation Parameters page opens.

- ____8) Accept the default option of **None** and click **Next**. The Command Line Options page opens.
- ____9) Accept the default command line **ChromeSetup.exe** and click **Next**. The Summary page opens.
- ____10) Click **Finish**. If the **Security Warning** window is displayed, click **Continue**.

	accuracy of this information before clicking the 'Finish' button to create this tas ng your entries. Click 'Quit' to exit this Wizard entirely.	k in BES. Select the 'Back' button to return to the Wizard
Application Name:	Google Chrome	
Source:	C:\Users\Administrator\Desktop\BigFixSrc\Software Distribution\Google (
Target Platforms:	WinXP, WinXPx64, Win2003, Win2003x64, WinVista, WinVista64, Win2	
Successful Installation Check:	No Detection	
Command Line:	ChromeSetup.exe	
Create a o	ne-time action. Leave this cleared to create a Fixlet you can reuse.	

The software package files are compressed and uploaded to the BigFix Root server and the Create Task window opens.

Note: If you receive a Security Warning message, click Continue.

_11) Select **SWD** from the **Create in site** drop-down box in the upper-right portion of the **Create Task** window. Click **OK**.

		Create in site: SWD	
ne:	Software Distribution - Deploy: Google Chrome	Create in site: SWD	~
		Create in domain: Systems Life	ecycle 🗸 🗸
escript	tion Actions Relevance Properties		
_			
	✓ ▲ B Z U Ξ Ξ 1	🕴 🕼 E 🚊 🗏 🗞 🥍 🗮	
	Description		
	This task will deploy: Google Chrome.		
	This task is applicable on: Windows XP, Windows XP x64	Windows 2003, Windows 2003 x64, V	Vindows Vista
	Windows Vista x64, Windows 2008, Windows 2008 x64, 1	Windows 7, Windows 7 x64, Windows 2	2008 R2, Windows
	Windows Vista x64, Windows 2008, Windows 2008 x64, V XP Embedded, Windows 8, Windows 8 x64, Windows 201	Windows 7, Windows 7 x64, Windows 2 2, Windows 8.1, Windows 8.1 x64, Win	2008 R2, Windows
	Windows Vista x64, Windows 2008, Windows 2008 x64, 1	Windows 7, Windows 7 x64, Windows 2 2, Windows 8.1, Windows 8.1 x64, Win	2008 R2, Windows
	Windows Vista x64, Windows 2008, Windows 2008 x64, V XP Embedded, Windows 8, Windows 8 x64, Windows 201 Windows 10, Windows 2016, Windows 2019, Windows 20	Windows 7, Windows 7 x64, Windows 2 2, Windows 8.1, Windows 8.1 x64, Win	2008 R2, Windows
	Windows Vista x64, Windows 2008, Windows 2008 x64, V XP Embedded, Windows 8, Windows 8 x64, Windows 201	Windows 7, Windows 7 x64, Windows 2 2, Windows 8.1, Windows 8.1 x64, Win	2008 R2, Windows
	Windows Vista x64, Windows 2008, Windows 2008 x64, N XP Embedded, Windows 8, Windows 8 x64, Windows 201 Windows 10, Windows 2016, Windows 2019, Windows 20 Actions	Windows 7, Windows 7 x64, Windows 2 2, Windows 8.1, Windows 8.1 x64, Win	2008 R2, Windows
	Windows Vista x64, Windows 2008, Windows 2008 x64, V XP Embedded, Windows 8, Windows 8 x64, Windows 201 Windows 10, Windows 2016, Windows 2019, Windows 20	Windows 7, Windows 7 x64, Windows 2 2, Windows 8.1, Windows 8.1 x64, Win	2008 R2, Windows
	Windows Vista x64, Windows 2008, Windows 2008 x64, N XP Embedded, Windows 8, Windows 8 x64, Windows 201 Windows 10, Windows 2016, Windows 2019, Windows 20 Actions	Windows 7, Windows 7 x64, Windows 2 2, Windows 8.1, Windows 8.1 x64, Win	2008 R2, Windows
	Windows Vista x64, Windows 2008, Windows 2008 x64, N XP Embedded, Windows 8, Windows 8 x64, Windows 201 Windows 10, Windows 2016, Windows 2019, Windows 20 Actions	Windows 7, Windows 7 x64, Windows 2 2, Windows 8.1, Windows 8.1 x64, Win	2008 R2, Windows
	Windows Vista x64, Windows 2008, Windows 2008 x64, N XP Embedded, Windows 8, Windows 8 x64, Windows 201 Windows 10, Windows 2016, Windows 2019, Windows 20 Actions	Windows 7, Windows 7 x64, Windows 2 2, Windows 8.1, Windows 8.1 x64, Win	2008 R2, Windows

The Create Task window closes, and the new task is displayed in the Console.

__12) Click the **Applicable Computers** tab and wait until the **BESFNDWIN10** computer appears as applicable. It might take several minutes for the Task to propagate and the Relevance to be evaluated before the system appears in the list.

____13) Click **Take Action**. The Take Action window opens.

_____14) Click the **Target** tab and select **BESFNDWIN10** from the list of available targets.

____15) Click **OK** to initiate the action.

____16) Monitor the status of the action and wait until it changes to **Completed** before continuing.

____17) Switch to the BESFNDWIN10 virtual machine. If you are logged off log in using tecuser with a password of bigfixrocks.

18) Observe that **Google Chrome** is installed and running. Close **Google Chrome**.

19) Switch to the **BESFNDWINROOT** virtual machine and return to the **Console**.

Exercise 44 – Creating Software Packages with the Manage Software Distribution Dashboard

You can use the Manage Software Distribution dashboard to perform the following software package related tasks:

- Create packages.
- Create default tasks associated with new packages.
- Add files to existing packages.
- Create and manage associated Fixlets.
- Add tags to software packages.
- Add pre-installation and post-installation commands
- Importing and exporting packages
- Set individual task logs.
- Create and deploy Application Management Groups.

In this exercise, you use the Manage Software Distribution to create a software package and associated deployment task. You then Take Action on the task to deploy the software package.

1) Switch to the **BESFNDWINROOT** virtual machine and return to the BigFix **Console**.

2) Click **Systems Lifecycle** in the lower-left portion of the **Console**. The navigation pane updates to show content that is related to the systems Lifecycle domain.

_____3) Expand the **Software Distribution** node in the navigation pane and then select **Manage Software Distribution**. The Managed Software Distribution dashboard opens in the Console.

 BigFix Console File Edit View Go Tools Help 		– 🗆 X
🖨 Back 👻 🗭 Forward 👻 🖄 Show Hidder	Content 🦓 Show Non-Relevant Content 🧞 Refresh Cons	sole
Systems Lifecycle	Manage Software Distribution	
Systems Lifecycle Domain Second Asset Discovery Sec	Groupe	Nanage Software Distribution C
Analyses (3)	Package Library	Last Updated: 2023-03-21 12:11:12
 Setup (1) Manage Software Distribution Software Distribution Tasks (1) Maintenance and Configuration BigFix Self Service Application (5) All Systems Lifecycle 		(0) Create Default Tasks (0) Delete (0) Settings
		Q Search Packages 0-0 of 0 < >
< >	Vendor 1L Product 1L	Version Private/Share 1L 1L
All Content	<	>
SigFix Management	No software distribution packages were found. Pleas	se click the "New Package" button at the upper left of this panel.
🙏 Patch Management		
Systems Lifecycle		
» *	<	>
		Connected to 'besfndwinroot' as user 'adminmo'

____4) Click **New Package**. The New Package pane opens.

____5) Enter the details for the new software package in the **New Package** pane as follows:

____a) Vendor: Igor Pavlov

____b) Product: 7-Zip

____c) Version: **19.00**

_____d) Private/Shared: Select **Shared** from the drop-down box.

New Package			
Vendor Igor Pavlov	Product 7-Zip	Version 19.00	Private/Shared •
			Confirm Cancel

_6) Click **Confirm**. The New Package pane closes, and the package details are saved to the dashboard.

_7) Click on the row for the **7-Zip** package. The package details are highlighted in the dashboard, then click **Add Files** in the lower-left portion of the dashboard. The Add Files to Package pane opens.

Note: There are several ways to source the binaries for the package. You can add a single file, add a folder and optionally its subfolders or source the file from the Internet by adding a file URL.

_8) Verify that the **Add File** option is select then click **Browse**. A file explorer window opens.

___9) Navigate to the following directory and select the **7x1900-x64.msi** file, then click **Open**.

📊 Open	×
← → → ↑ 📴 « Software Distribution > 7-Zip	✓ Ö Search 7-Zip 🔎
Organize 🔻 New folder	≣≡ ▾ Ⅲ ?
BigFixSrc ^ Name	Date modified Type Size
Windows 7z1900-x64.msi	1/6/2020 6:32 PM Windows Installer 1,708 K
This PC 22105-x64.exe	11/25/2021 12:17 Application 1,487 KI
E Desktop	
🗄 Documents	
🖶 Downloads	
👌 Music	
E Pictures	
Videos	
🏪 Local Disk (C:)	
i Network	
 ✓ 	>
File name: 7z1900-x64.msi	✓ All Files (*.*) ✓
	Open Cancel

The file explorer window closes, and you are returned to the Add Files to Package pane.

_10) Click **Add to Package** in the lower-right portion of the **Add Files to Package** pane. The file is compressed and uploaded to the BigFix Root server and the Add Files to Package pane closes. You are returned to the Manage Software Distribution dashboard and the file that was added to the package is shown at the bottom of the dashboard.

Vendor 1L	Product 1	Version Priv 1L 1	ate/Shared Cre	eator 1L	Owner 1	Last Modifie
Igor Pavlov	7-Zip	19.00 Sha	red adr	minmo	adminmo	2022-02-24
<						>
Manage Files Manage Task	5					
Files In Package "7-Zip"						
Add Files Delete (0)				Q Sea	arch File Name	s
File Name 1		Size 1	File Status	Date Addeo	⁴ 1L	Relative Path
7z1900-x64.msi		1.75 MB	0	2022-02-24	12:22:33	
<						>

_11) Click the Manage Tasks tab in lower-left portion of the dashboard, then click New Task.

Vendor 1L	Product 1L	Version	Private/Shared	Creator	1L Owner 1L	Last Modifie
Igor Pavlov	7-Zip	19.00	Shared	adminmo	adminmo	2022-02-24
Manage Files Manage Tasks Distribution Tasks for Package "7-Zip"						>
New Task Delete (0)	Add to AMG: (0) Remove from AMG: (0)				Q Search Names	
Name 1L		Owner 1	L		Created 1	Site •
<						>

No distribution tasks have been created for this package. Please click the "New Task..." button at the top left of this panel.

The Create Distribution Task pane opens.

_12) Place a check beside the package file 7z1900-x64.msi and click Next.

	istribution Task	ŀ	
	p of files you want to include in this tas rom package "7-Zip"	к.	
	ion package i zip		
	Name	Relative Path	URL
~	7z1900-x64.msi		
1 files included			
		N	lext Cancel

The next page of the Create Distribution Task pane opens where you specify the details that are required to install the software package. On this page you can define the installation command, any advanced options such as working directory and installation log file properties as well as which user to use when installing the package.

_13) Expand the Show Advanced Options node. Review the various options that can be set on this page.

- The Also create an associated uninstall task option when selected creates an uninstall action that is associated with the task. If you select this option, you can also choose which user is used to run the uninstall action
- The **Apply MST files(s) to install command** option lets you select from a list of all the MSTs that exist in the MSI file that can be applied. The 7-Zip MSI file that is being used for this exercise does not have any associated MST files.
- The Add custom preinstallation and postinstallation commands option allows you to specify any additional commands that can be added to the task instead of editing the task and adding them later.
- The **Create an individual log for this Task** option lets you create a log file of the action script execution. When selecting this option, you can either used the default name for the log file or specify

a custom name. The default name for the log file corresponds to the Action ID with a .log extension. You also have the option to leave the log file on the target or upload it to the server after the task execution is complete.

- The **Use custom working directory** option allows you to specify a directory where the binaries are copied and then executed. If you do not specify a custom directory, the execution is performed from the **___Download** directory. If you specify a custom directory, it will be created if it does not already exist and **/tmp** is appended to the directory name that you specify. If you specify this option, you can also choose to remove the folder when the action is complete, otherwise the folder is left on the target machine.
- The Run Command As option lets you specify which user to run the installation command as. There are 3 options including System User, Current User (Windows Only) and Local User (Windows Only). The default option is System User. This option works most of the time, but certain packages might need to be installed as a particular user.

_14) Select the **Create an individual log for this Task** option. Select the **Use a custom name** option and enter **swd7zip** in the name field.

Create an individual log for this Task Name of the log file:	
Use the default name: {Action ID}.log Use a custom name:	swd7ziip .log
Upload this log file to the Server upon completion of this Task	
15) Select the Use custom working directory option and enter C:/	'SWD in the text field.

Use custom working directory:	C:/SWD	/tmp	
Remove this folder after the ac	tion has completed		

	-
Create Distribution Task	
MST File Full execution command	^
No MST files available.	
Add custom preinstallation and postinstallation commands	
Create an individual log for this Task	
Name of the log file:	
Use the default name: {Action ID}.log O Use a custom name: swd7ziip .log	
Upload this log file to the Server upon completion of this Task	
✓ Use custom working directory: C₂/SWD /tmp	
Remove this folder after the action has completed	
Run Command As:	
System User O Current User (Windows Only) O Local User (Windows Only)	~
Back Next	Cancel

The define additional applicability conditions pane is displayed. This pane contains the following 2 options:

- The **Do not use any additional applicability conditions** option only applies platform applicability relevance and some free space applicability based on the package file sizes.
- The **Target using the following applicability conditions** option allows you to specify additional applicability Relevance statements in addition to the basic platform applicability at the time of Task creation. If you do not select this option, you can edit the Task after creation to add additional applicability Relevance statements.

_17) Leave the default **Do not use any additional applicability conditions** option selected and click **Create Task**. If the **Security Warning** window opens, click **Continue**.

Create Distribution Task
Define additional applicability conditions. Image: Do not use any additional applicability conditions. Image: Target using the following applicability conditions:
IMPORTANT! - If you intend to make custom changes to the action or relevance, view the editing instructions at the beginning of the generated action. Back Create Task Cancel

The Create Task window opens.

Note: If you receive a Security Warning message, click Continue to proceed.

_18) Edit the **Name** field to **Deploy 7-Zip**. Select **SWD** from the **Create in Site** drop-down located in the upperright portion of the **Create Task** window.

Create Task -		×
Name: Deploy 7-Zip Create in site: SWD	~	
Create in domain: Systems Lifecycle	~	
Description Actions Relevance Properties		
✓ ✓ ▲ B I U 注 는 注 章 章 書 ▲ 券 컬		
Description		^
This task will download 1 files from the "7-Zip" Software Distribution Package onto selected endpoints		
Installation Command: msiexec.exe /i "7z1900-x64.msi" /qn		
Run Command As: System User		
Download Size: 1,707.5 KB		
Actions		
Click here to deploy this action		
	_	
1		
OK Cancel		

_19) Click **OK**. The Deploy 7-Zip task is shown in the Manage Software Distribution dashboard.

Vendor 1L	Product 1	Version 1L	Private/Shared	Creator	1L Owner	r 1L L	Last Modifie
Igor Pavlov	7-Zip	19.00	Shared	adminmo	o admin	imo 2	2022-02-24
<							>
Manage Files Manage Tasks							
Distribution Tasks for Package "7-Zip							
New Task Delete (0)	Add to AMG: (0) Remove from AMG: (0)				Q Search Na	mes	
Name 1L		Owner 1	IL		Created	1L	Site
Deploy 7-Zip		adminmo			2022-02-	24 13:21:04	SWD
<							>

__20) Select the **Systems Lifecycle domain**. The navigation pane updates to show the Systems Lifecycle content.

____21) Expand the **Software Distribution** node and then select the **Software Distribution Tasks** node. The list pane updates to show the custom software distribution tasks.

__22) Select the **Deploy 7-Zip** task in the list pane. The details for the selected task are shown in the work area below.

Note: It might take several minutes for the Task to be propagated to the targets and evaluated.

_____23) Click the **Applicable Computers** tab and wait until the **BESFNDWIN10** endpoint appears in the list.

_____24) Click **Take Action**. The Take Action window opens.

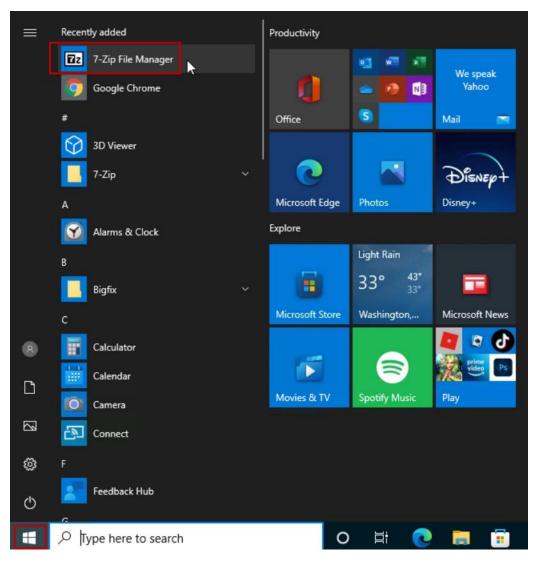
_____25) Click the Target tab and select BESFNDWIN10 from the list of available computers.

_____26) Click **OK** to initiate the action.

_____27) Monitor the status of the action and wait until it changes to **Completed** before continuing.

28) Switch to the **BESFNDWIN10** virtual machine. If you are logged out log in as **tecuser** with a password of **bigfixrocks**.

____29) Click **Start** in the lower-left portion of the Windows **Desktop** and note that **7-Zip File Manager** is now installed on the system.



_30) Switch to the **BESFNDWINROOT** virtual machine.

This completes the exercise.

Exercise 45 – Creating and Deploying Software Packages with the WebUI

In this exercise, you use the WebUI to create and deploy software packages.

____1) Switch to the **BESFNDWINROOT** virtual machine and return to the **WebUI** in the **Firefox** browser. If your session has expired, log in using **adminmo** with a password of **B1gfixrocks**.

_____2) Double-click the **Firefox** icon on the Windows desktop. The Firefox browser opens.

____3) Type https://besfndwinroot in the address bar of the Firefox browser and press Enter. If you are presented with a certificate security warning, click the Advanced button and then click Accept the Risk and Continue.

The Login splash screen for the BigFix WebUI opens.

_____4) Enter the login credentials as follows, then click Log in:

Username: adminmo

Password: B1gfixrocks

Username	
Password	
•••••	۲
Remember Me	
	Log in

The WebUI Overview page opens.

____5) Select **Apps** -> **Software.** The Software page opens.

____6) Click **Add Software** located in the upper-right portion of the **Software** page. The Where is the Software file? pane opens.

- ____7) Click **Choose File**. The File Upload window opens.
- ____8) Select the **Firefox Installer.exe** file in the following directory then click **Open**.:

```
C:\Users\Administrator\Desktop\BigFixSrc\Software Distribution\FireFox
```

🍅 File Upload					×
← → ~ ↑ 📙 « Se	oftware Distribution > FireFox	v Ö	Search FireFox		Q
Organize 👻 New fold	ler				?
BigFixSrc ^	Name	Date modified	Туре	Size	
Windows	🚔 Firefox Installer.exe	1/6/2020 6:34 PM	Application		313 K
💻 This PC	🛤 FireFox.png	1/6/2020 6:51 PM	PNG image		14 K
Desktop					
🗄 Documents					
🕂 Downloads					
👌 Music					
Pictures					
📑 Videos					
🏪 Local Disk (C:)					
💣 Network					
¥	<				>
File r	name: Firefox Installer.exe	~	All Files (*.*)		\sim
				Cancel	
			Open	Cancel	

You are returned to the Where is the Software File? pane

9) Click **Upload**.

Where is the Software file?	
Firefox Installer.exe	Click here to configure the upload sites.
Change File	Download file at Task runtime 0
	Optional Username
	Optional Password
Cancel Up	oad

The Add Software page opens and many of the fields are populated based on the information that was extracted from the selected file.

_10) Enter Web Browser in the Category field and click Enter. The new category is added to the page.

Category	Web Browse	er ×
	1	

Tip: Software packages can belong to more than one category. If you want the package to be associated with multiple categories, type the additional categories in the text box. Click the Enter key after typing each category name.

____11) Enter This task installs Firefox version 18.05 in the Description field.

Description	
B I U B S X' X,	· ≡ ≡ ≡ • ∞ - ⊞• X <>
This task installs Firefox version 18.05	

_12) Scroll down to the Configuration 1 section on the Add Software page and make the following changes:

____a) Change the string Configuration 1 in the Name field to Deploy Firefox

____b) Select **SWD** from the **Site** drop-down box.

A

___c) Expand the arrow in the Action section and change the name to Deploy: Firefox. Type -ms in the Parameters field and click Enter.

ction				
Install				~
Name * Deploy: Firefox No prerequisites defined				
Run command as	System User	Current User	Local User	
Parameters				Use Command Line
-ms ×				
Command Line Preview				
"Firefox Install	.er.exe" -ms			

_13) Scroll to the top of the Add Software page and click Change Icon. The File Upload window opens.

📦 File Upload				×
\leftarrow \rightarrow \checkmark \uparrow \blacksquare « Softwar	e Distribution > FireFox	ٽ ~	Search FireFox	Q
Organize 🔻 New folder				
BigFixSrc ^ N	ame	Date modified	Туре	Size
Windows	FireFox.png	1/6/2020 6:51 P	M PNG image	14 KI
This PC				
Desktop				
Documents				
🖶 Downloads				
b Music				
Pictures				
🚆 Videos				
🏪 Local Disk (C:)				
🔿 Network				
✓ <				>
File name:	FireFox.png	~	All Supported	Types (*.ico;*.pn; 🗸
			Open	Cancel

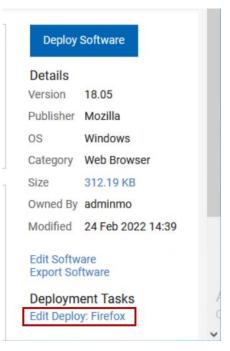
_14) Select the **FireFox.png** file and click **Open**.

The File Upload window closes and the Firefox icon is shown in place of the default package icon.

	٥.	ወ	î
Change Icon Supported Formats: .ico, .png			
Maximum Size: 25KB			
Recommended Dimensions: 120x120			
OR			
Use default icon			

___15) Scroll to the bottom of the **Add Software** page and click **Save**. The Add Software page closes and the Overview page for the newly created package opens. You now edit the Deployment Task to include additional applicability Relevance statements.

_16) Click the **Edit Deploy: Firefox** link on the right side of the **Overview** page.



The Edit Task page opens.

not exists regapp "firefox.exe"

____17) Scroll down to the **Relevance** section. Review the current applicability Relevance statements.

____18) Click the **plus (+)** icon to the right of Relevance statement 3. A new line is added to the existing applicability Relevance statements.

_19) Replace the string **true** with the following Relevance expression:

Relevance	* Action 1	
client filesy	> 639360 else if	ystem starts with "Win") then free space of drive of (mac of it) of operating system) then free space of thname of client) > 639360 else free space of filesystem
2 versio	n of client >= "8.2	,
		system AND (if(name of operating system starts with of operating system != 3 else true)
4 not ex	ists regapp "firef	ox.exe"

_20) Scroll to the bottom of the **Edit Task** page and click **Save**. The Edit Task page closes and you are returned to the Overview page for the Firefox package.

_21) Follow steps 5 – 20 above to create another Software Package for **Google Chrome** using the following information:

• Software file: Choose **googlechromestandaloneenterprise64.msi** in the following directory:

C:\Users\Administrator\Desktop\BigFixSrc\Software Distribution\Google Chrome

- Category: Begin typing **Web Browser** in the field and select the existing Web Browser category.
- Description: This task installs Chrome Version 67.218.

Software Name *				
Google Chrome				
Version * 67.218.16472			Publisher Google Ll	
Operating System *	Linux OS	S X Solaris	Windows	Other
Category Web	b Browser ×			
Description				
B I U 8	S X ^a X _a	A ▼ 🗄 ½		- ⊞∗ 🗙
This task installs Chro	ome Version 67	.218		

- Configuration Name: **Deploy Chrome**.
- Site: SWD
- Action name: Deploy: Google Chrome

Deploy Chrome				+ Add the configuration
Name * Deploy Chrome				
Site *		•		
Action				
Install ()				~
Name *				
Deploy: Google Chrome				
> No prerequisites defined				
Run command as	System User	Current User	Local User	
Parameters				Use Command Line
/qn ×				

• Icon file name: Google.png



Maximum Size: 25KB Recommended Dimensions: 120x120

OR



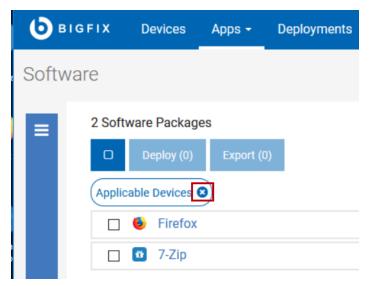
Use default icon

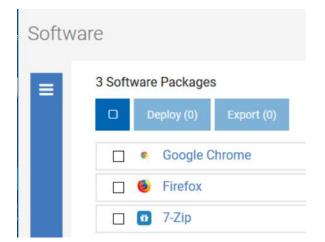
Additional applicability Relevance statement: not exists regapp "chrome.exe"

1	f(name of operating system starts with "Win") then free space of d lient > 121905568 else if ((mac of it) of operating system) then free		
	lesystem of client > 121905568 else free spa lesystem of client > 121905568 else free spa lesystem of client > 121905568)		
2	ersion of client >= "8.2"	-	
3	indows of operating system AND (if(name of operating system st Win") then platform id of operating system != 3 else true)	arts with	
ł	xists file "msiexec.exe" of system folder	-	
5	Relevance generated from file "googlechromestandaloneenterprise disjunction of (NOT exists keys "{3887A4F3-6B98-3B9D- A15-654AE6C48ABA}" whose (value "DisplayVersion" of it as string = "67.218.16472" as version AND value "Language" of it as string = eys "HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows CurrentVersion\Uninstall" of (x32 registry; (if exists x64 registry the easistry else nothing))))	g as version "1033") of	

_31) Select **Apps > Software** from the **WebUI** menu at the top of the page. A list of packages that are relevant to at least 1 endpoint are displayed. The Google Chrome software package should be relevant to only BESFNDWINROOT and the Firefox package should only be Relevant to BESFNDWIN10.

Tip: It might take several minutes for the applicability Relevance to be evaluated on all of the subscribed endpoints. To view all packages, you can delete the **Applicable Devices** filter located just above the list of software.





_32) Place a **check** beside the **Google Chrome** package and click **Deploy** at the top of the Software page.

Softw	are		
	3 Softv	vare Packages	5
	D	Deploy (1)	Export (1)
	Applica	able Devices 😣)
		• Google C	hrome
		Firefox	
		o 7-Zip	

The Deploy Software page opens to the Select action tab.

_33) Click the **down arrow** in the **Select an action** section of the page, then choose **Deploy: Google Chrome** from the **Select a configuration** drop-down. Click **Next**.

BIGFIX Devices Apps - Deployments F	eports 🗢 🗸	Ċ
eploy Software		
Select software C Select action	Select targets Configure Deployment Summary Deployment Name	
1 Software	Clear All (1) Google Chrome	
II Google Chrome	■	2
Action Description This task installs Chrome Version 67.218		<u> </u>
Select action Deploy: Google Chrome		

The Select targets tab on the Deploy Software page opens.

_34) Place a **check** beside the **Computer Name column** name to select all the Relevant targets. Click **Next**.

BIGFIX Devices Ap	ps ~ Deployments	Reports		پ - د
Deploy Software				
Select software	Select action	Select targets	Configure	Deployment Summary
Target by device Target by g	roup			Deployment Name Google Chrome
1 device 🌾 🚿	r est	View: 20 🕶 <	1 🔹 > 1 of 1 pages	✓ 1 Software 🗹
1 Item Selected View Se	lected only			∧ 1 Target
Computer Name 🗘	Critical Patches	Applicable P \downarrow	Deployments Device T	BESFNDWINROOT O
Type for search	•	\$	÷	Back Next →
BESFNDWINROOT	Yes	24	12 Server	
	•			
<			>	
			'	

The Configure tab on the Deploy Software page opens.

____35) Select the **No end date** option on the **Run** options page.

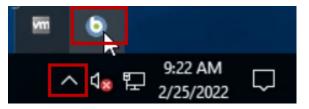
_36) Click the **pencil** icon beside the **Offer** options. The Offer options page opens. Complete the offer options as follows:

- Select the Send this as an offer option.
- Enter Install the Google Chrome Web Browser in the Offer Description field.
- Select the **Send only to Software Distribution Client dashboard** at the bottom of the **Offer** options page.
- Select the **Notify users of offer availability** option at the bottom of the **Offer** options page.

Select sof	tware	Select action Select targets	8	Configure
Run Users	1	Offer Send this as an offer ⑦		
Messages	1	Offer Description B I U \textcircled{S} X ² X ₂ A \blacksquare $\stackrel{!}{=}$	i?	- :::
Offer	1	ر» ۲/۶ ۲/۶		
Post-Action	1	Install the Google Chrome Web Browser		
Applicability	1			
Success Cri	1			
Action Script	1			
		Send only to Software Distribution Client dashboard Notify users of offer availability		

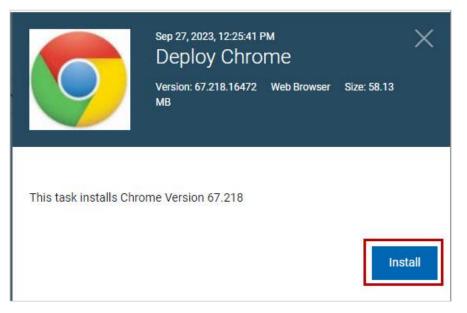
__37) Scroll to the bottom of the **Deploy Software** page click **Deploy** located in the lower-right portion of the page. The Deployment Overview page opens for the action.

___38) Open the **BigFix Self-Service Application** by clicking the **BigFix** icon in the lower-right portion of the taskbar. You might have to click on the up-arrow in the lower-right portion of the taskbar to view the hidden icons.



The BigFix Self-Service Application opens and shows the Deploy Chrome package.

_39) Click the **Deploy Chrome** icon. The details for the Deploy Chrome package open in the right-side of the BigFix Self-Service Application. Click **Install**.



The installation of Google Chrome begins.

_40) Observe the status changes in the **BigFix Self-Service Application** interface. Wait until the deployment shows **Completed** before continuing.

	sep 27, 2023, 12:25:41 РМ Deploy Chrome			
	Version: 67.218.16472 MB	Web Browser	Size: 58.13	
This task installs Chro	me Version 67.218			
	⊘ Complete	d		

- _____41) Close the **BigFix Self-Service Application** interface. Observe that Google Chrome now appears on the Windows Desktop for the BESFNDWINROOT virtual machine.
- _____42) Double-click the **Google Chrome** icon on the Windows **Desktop**. The Google Chrome web browser opens.
 - 43) **Optionally**, return to the **WebUI** interface in the **Firefox** browser and deploy the **Firefox software package** to **BESFNDWIN10** by following the instructions in steps 31 37.