BigFix Foundation

Student Workbook - Windows

September 2023

For more information

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

About HCLSoftware

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Produced in the United States of America.

Contents

Release Date	Versio	Authors	Comments
January 2020	2.3	Mark Leaphart	Initial version
March 2020	2.4	Mark Leaphart	Several edits after initial version.
June 2020	2.5	Mark Leaphart	Upgrade BES to v10
July 2020	3.1	Mark Leaphart	Various edits after upgrading to v10.
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.
Aug, 2020	3.5-3.6	Mark Leaphart	Added more verbiage for windows/linux root servers. Added trailers to sections that pertained to linux/windows root servers.
March 2021	3.7	Michael Thompson	Updated some screen shots to 10.0.1.41
April 2021	3.7.1	Mark Leaphart	Added new section on email server and Thunderbird.
January 2022	3.8.0	Dale Jester	Update for Platform 10.0.4 and updated WebUI. Split out Windows only.
February 2023	4.0.0	Dale Jester	Update for Platform 10.0.8
September 2023	5.0.0	Dale Jester	Updated for Platform 11.0.0

BigFix Foundation - Installing BigFix

Student exercises

Overview

In this lab you will learn how to:

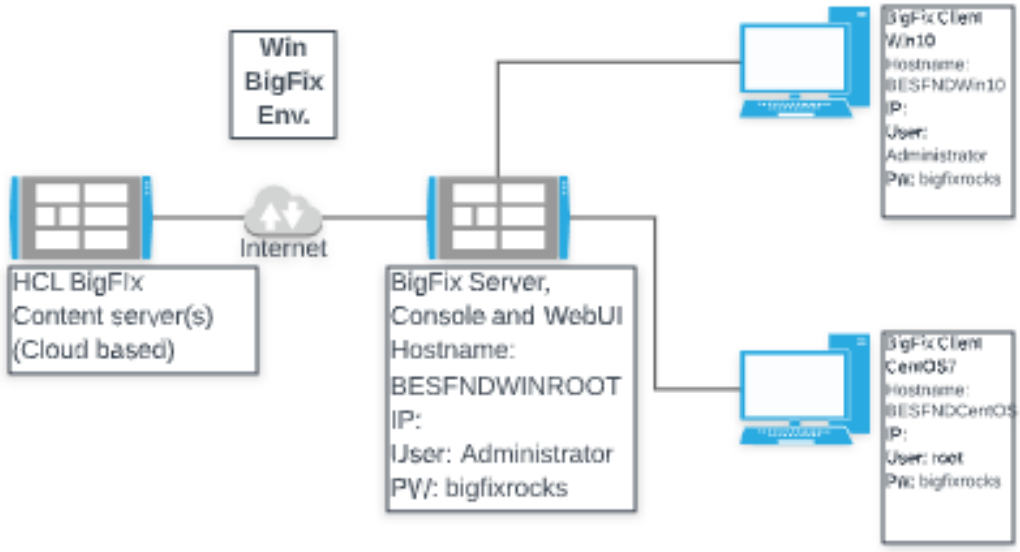
- Download BigFix
- Install BigFix Server - Windows
- Install BigFix Server - Linux
- Install BigFix Console
- Install BigFix Client(s)
- Install BigFix WebUI

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	10.0.0.2	tecuser bigfixrocks
	BESFNDCENTOS	BigFix Client	CentOS7	10.0.0.3	root bigfixrocks
	All	BigFix Console creds			adminmo B1gfixrocks

Accessing Lab Environment

The BigFix Lab environment is currently being hosted in Skytap's (www.skytap.com). 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

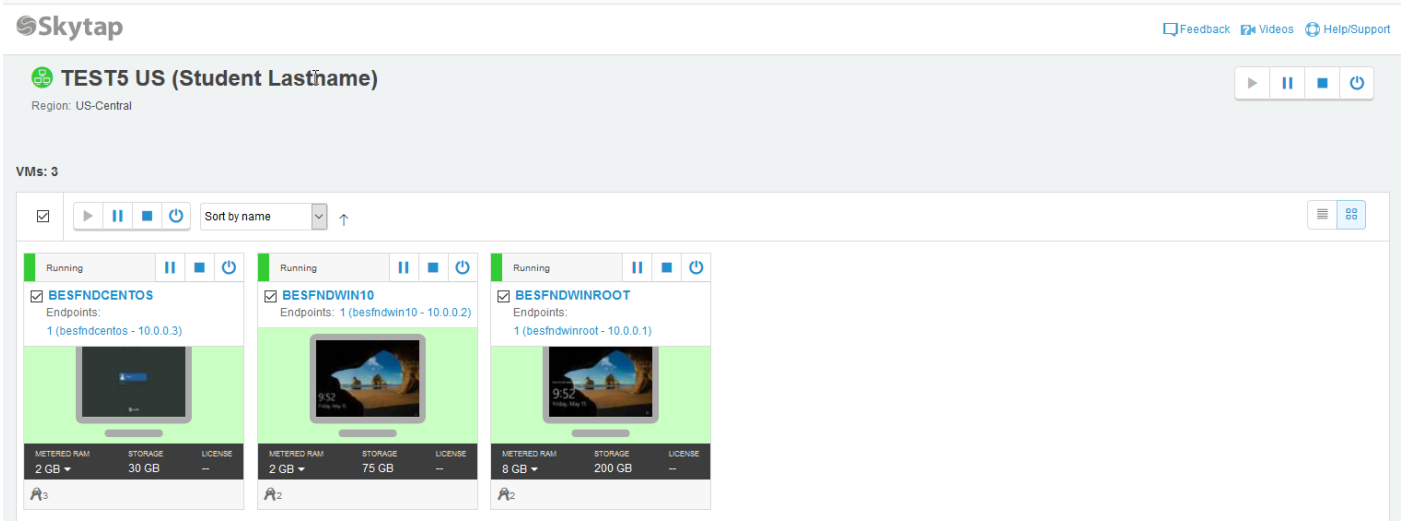
Student Passcode: P9G6ZB7APZYQ

Student URL: https://hcl-vt.skytap-portal.com/lab_access/event_participant/13/995d8455a0ac743edb1a1c6ebca90d9cc8e6805383edc11cf581887b12ceff5a

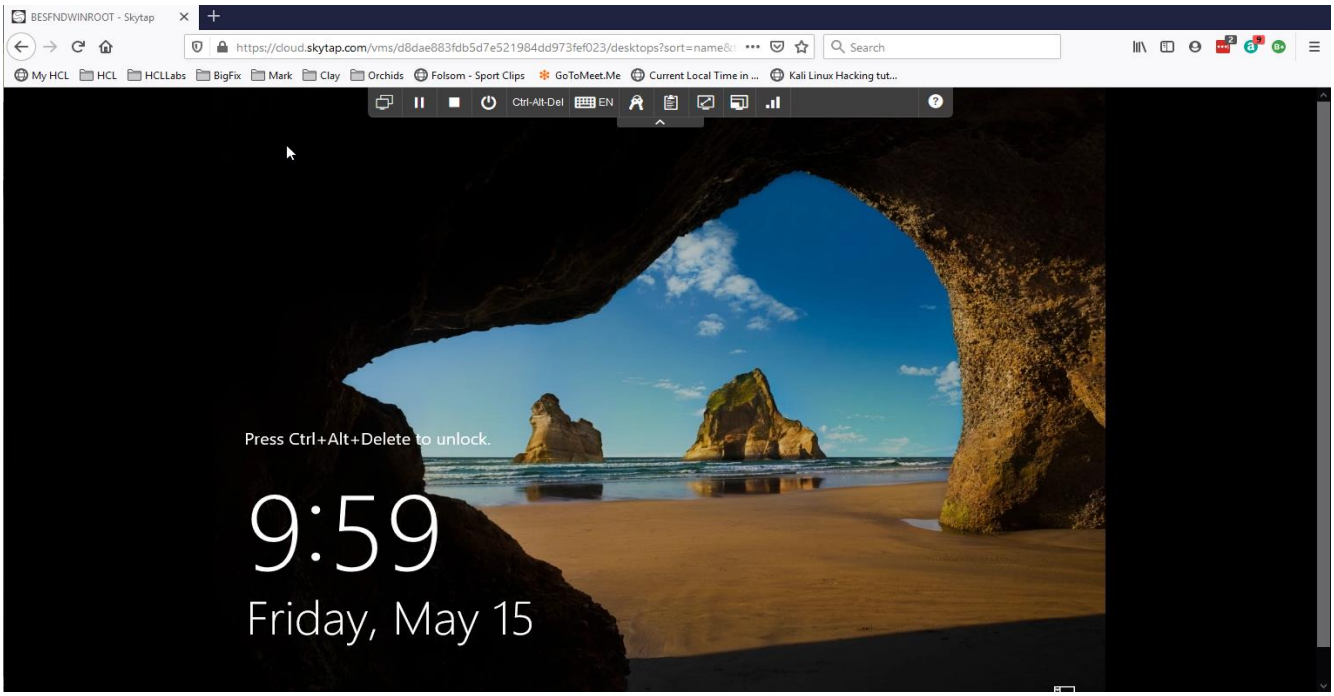
Instructors:

Instructor Email/ID	Instructor Name	Region
leaphartmark@gmail.com	Mark Leaphart	US-Central

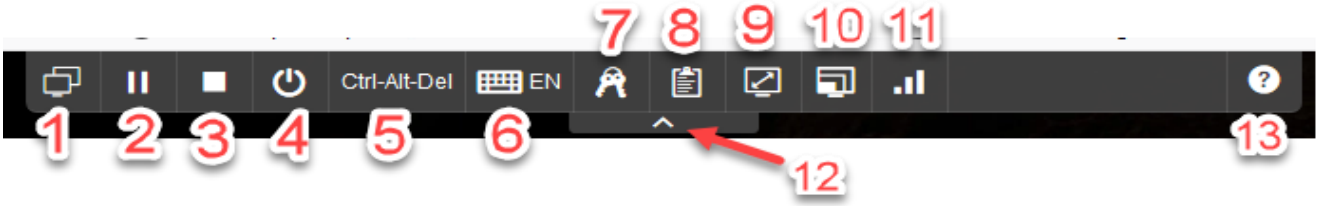
Click on the url provided in your email and provide your credentials (if asked). You will be taken into Skytap and you will see your provisioned environment.



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;

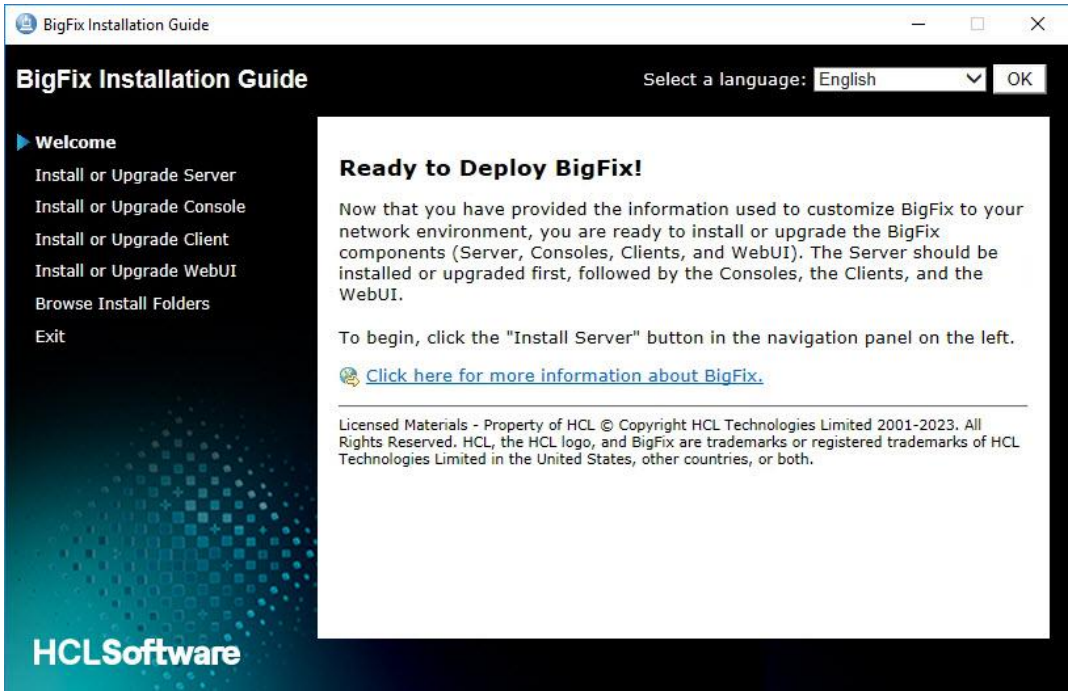
```
\WindowsRootServerCredentials\Windows
```

____9) Select the **masthead.afxm** file and click **Open**. The Choose Destination Location pane opens.

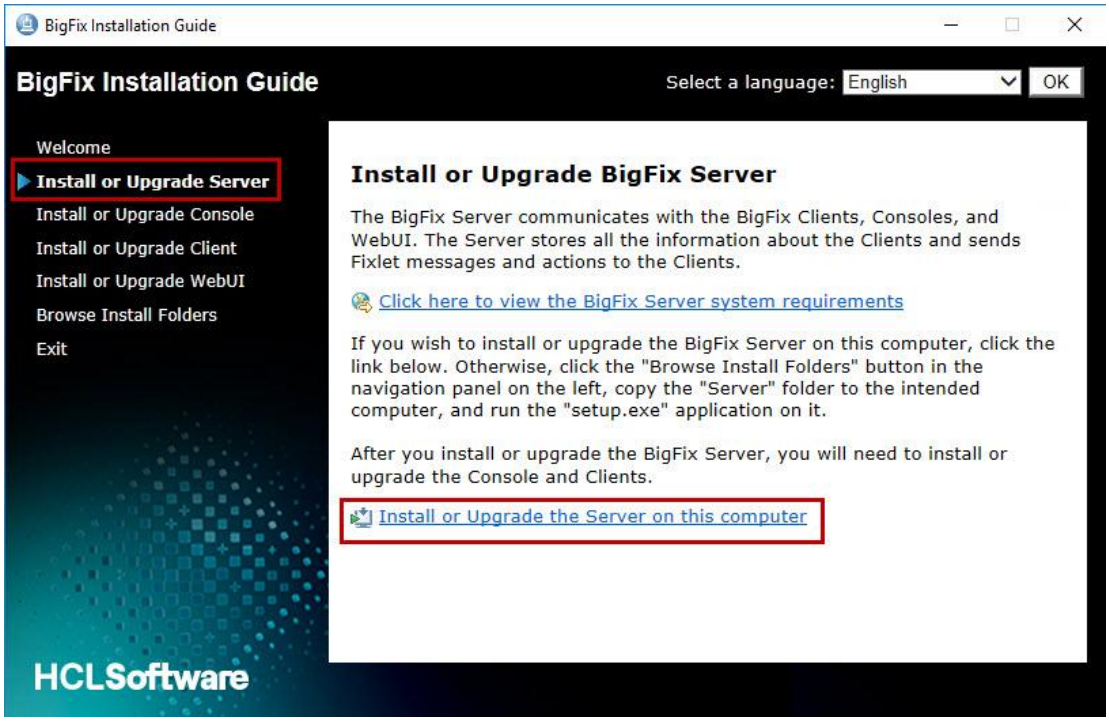
____10) Accept the default path and click **NEXT.**

____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.

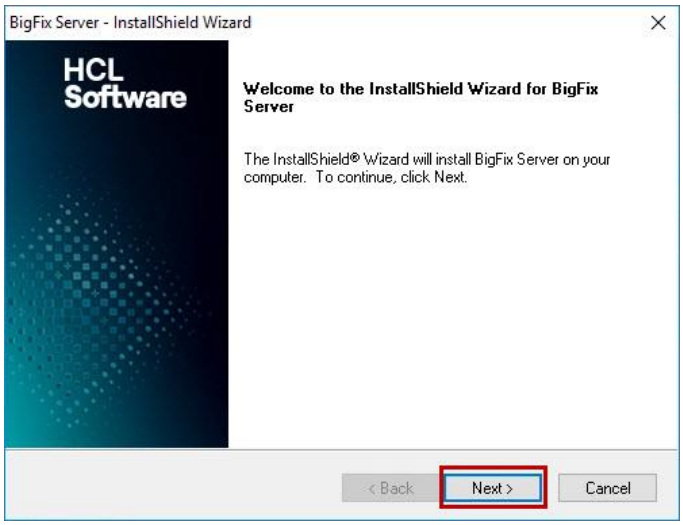


____12) Select: **Install or Upgrade Server**



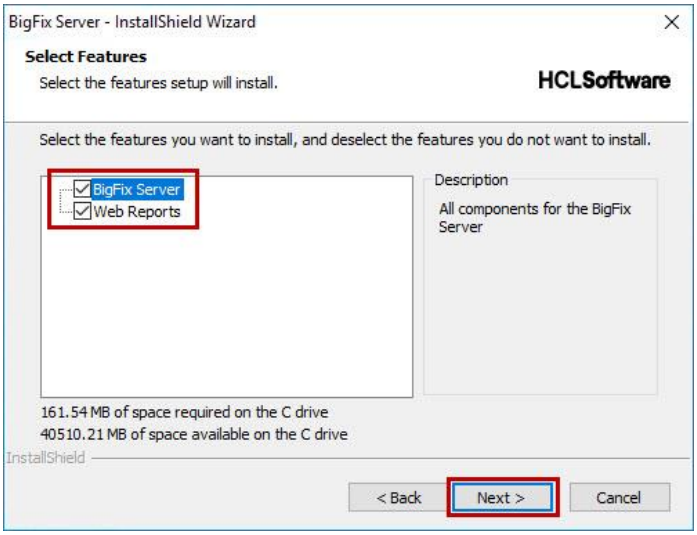
The BigFix server installation wizard starts. Verify that **English** is selected then click **OK**. The Welcome pane opens.

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



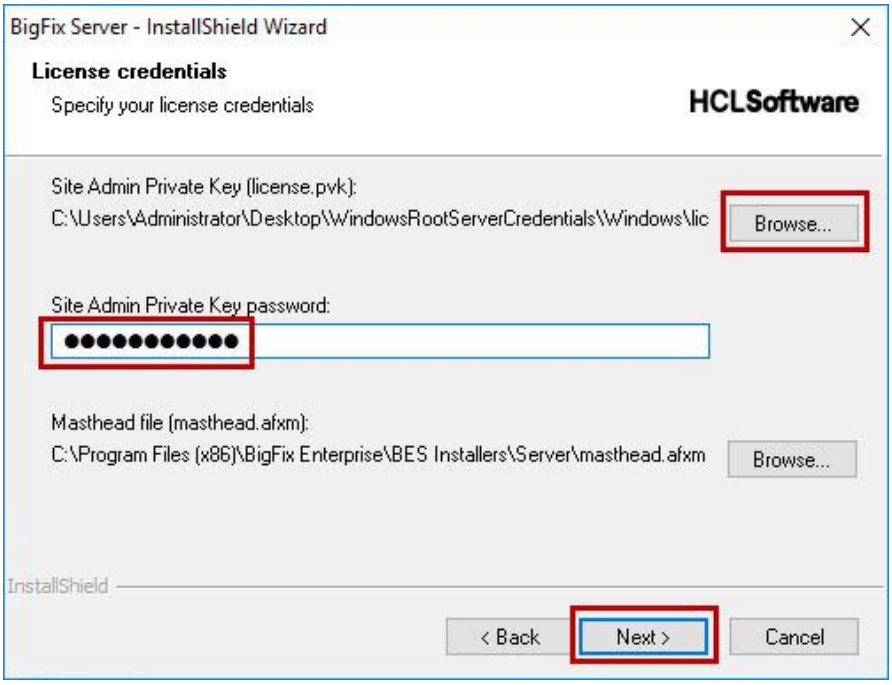
The Select Features pane opens.

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



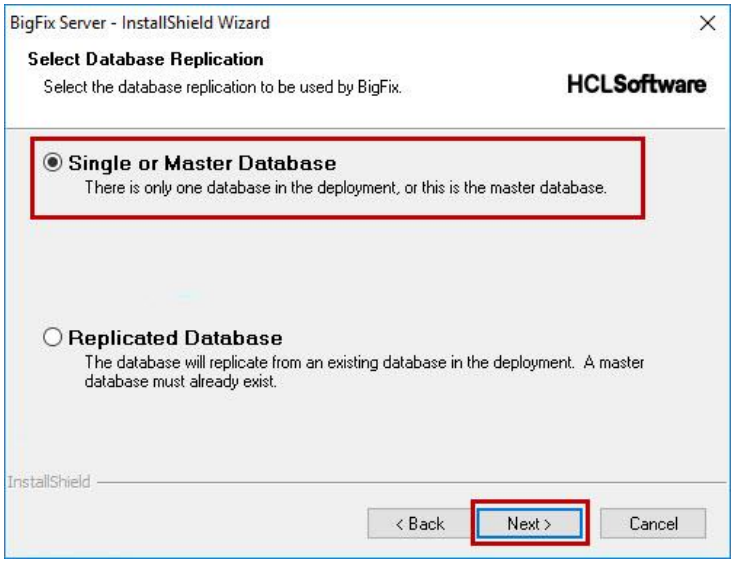
The License credentials pane opens.

____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**.



The Select Database Replication pane is displayed.

____15) Select the **Single or Master Database** option and click **Next**.



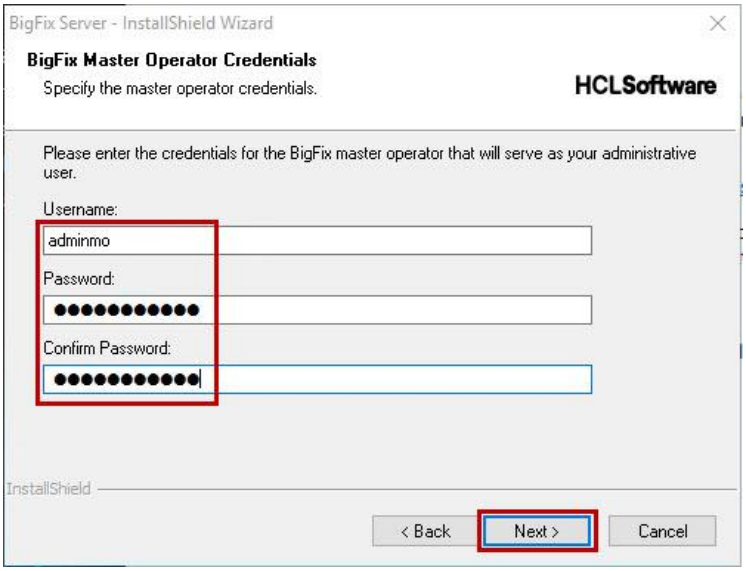
The BigFix Master Operator Credentials pane is displayed.

____16) Enter the Master Operator information as follows:

___a) Username: **adminmo**

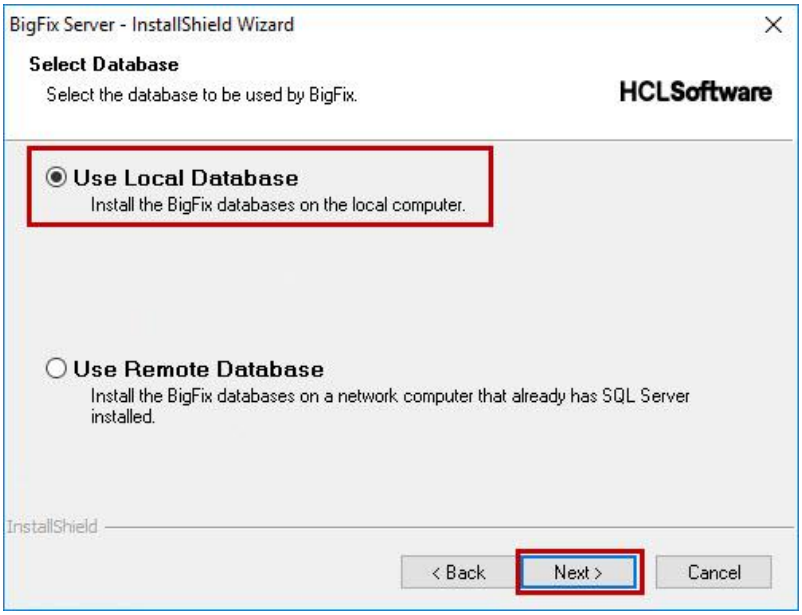
___b) Password: **B1gfixrocks**

___c) Confirm password: **B1gfixrocks**



____17) Click **Next**. The Select Database pane is displayed.

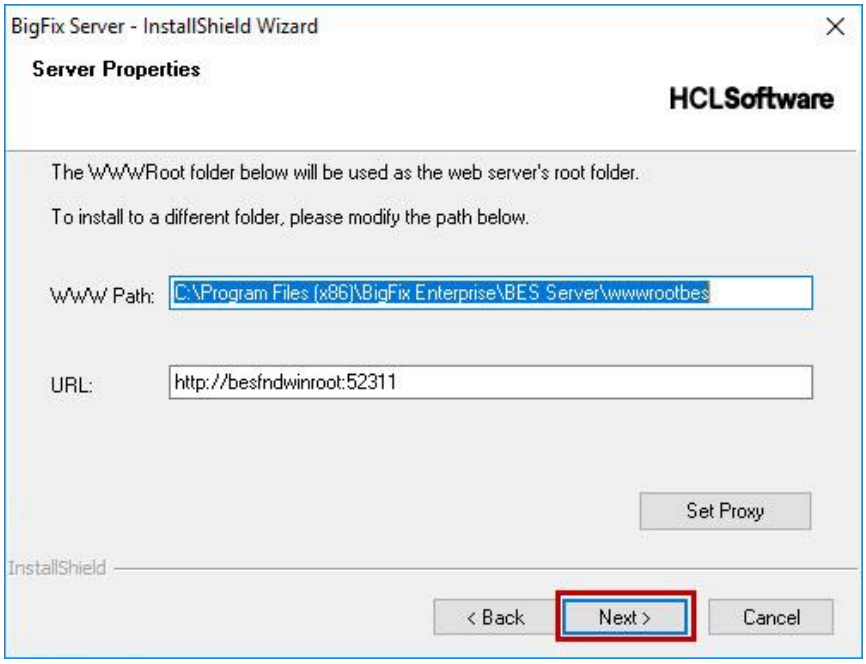
____18) Select the **Use Local Database** option and click **Next**.



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.**

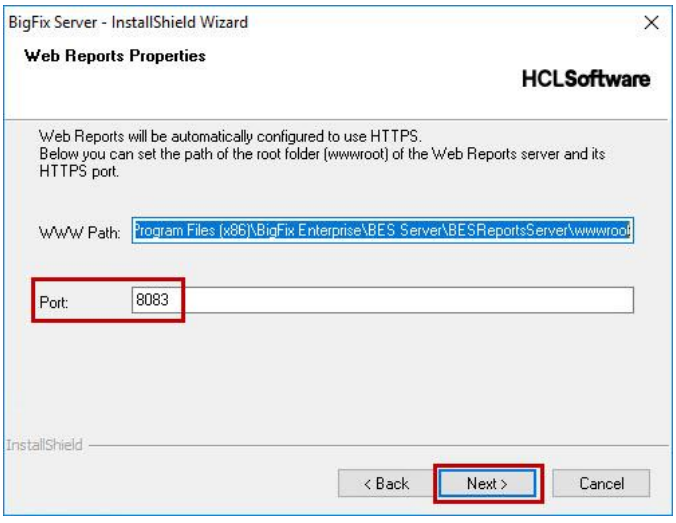


The Web Reports Properties pane is displayed.

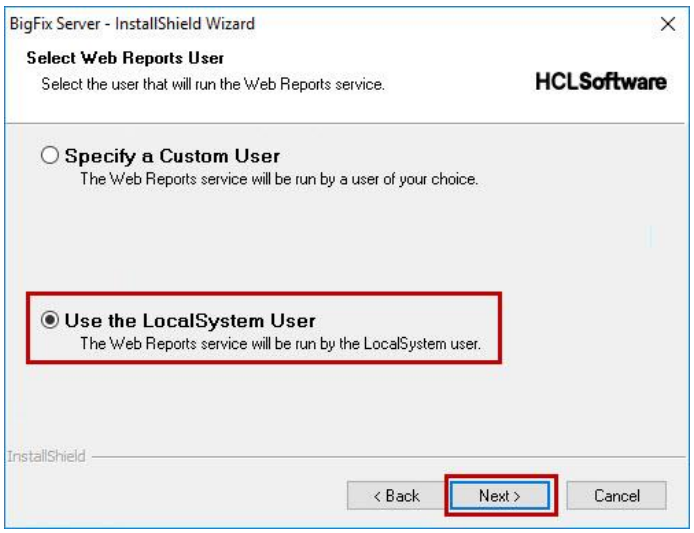
Note: Pay attention to the URL: the name presented here MUST be resolvable by your endpoints either via DNS or hosts file. If you use a Proxy to access the Internet at your work location, you can click the "Set Proxy" button to provide the proxy configuration information. A Proxy configuration is not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

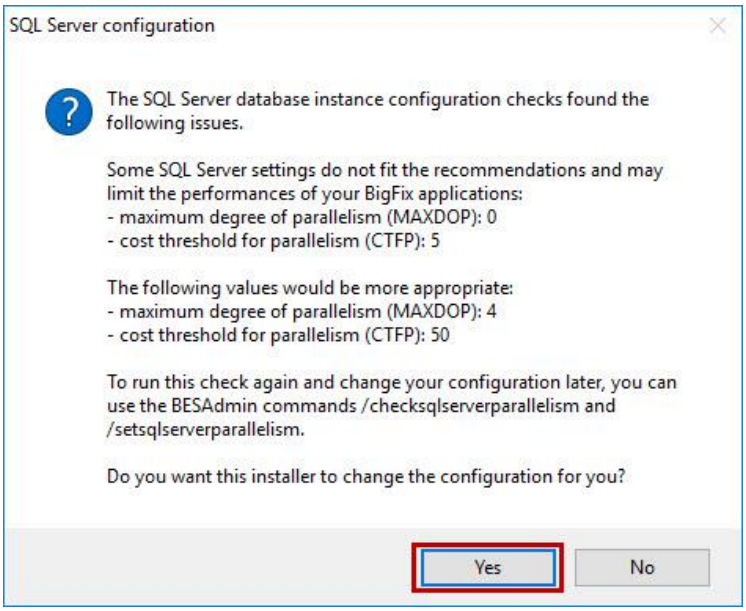


____22) Select the **Use the LocalSystem User** option and click **NEXT**.



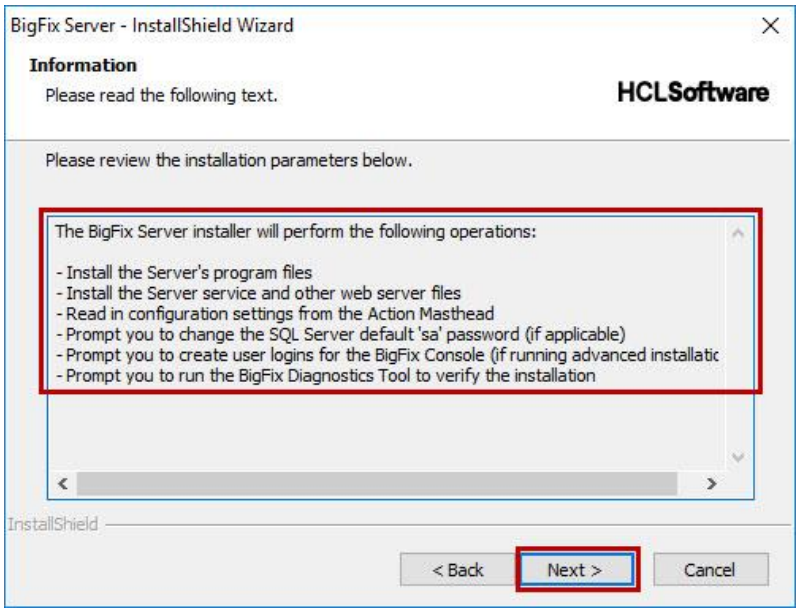
The SQL Server configuration pane is displayed.

____23) Review the information on the SQL Server configuration pane and click **Yes**.



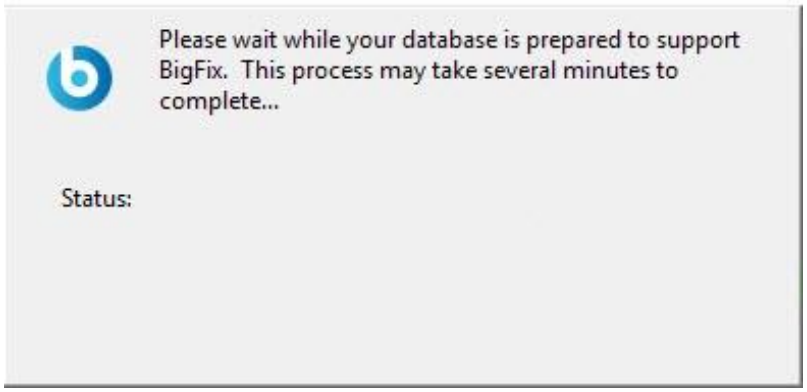
The Information pane is displayed.

____24) Review the installation information, then click **Next**.

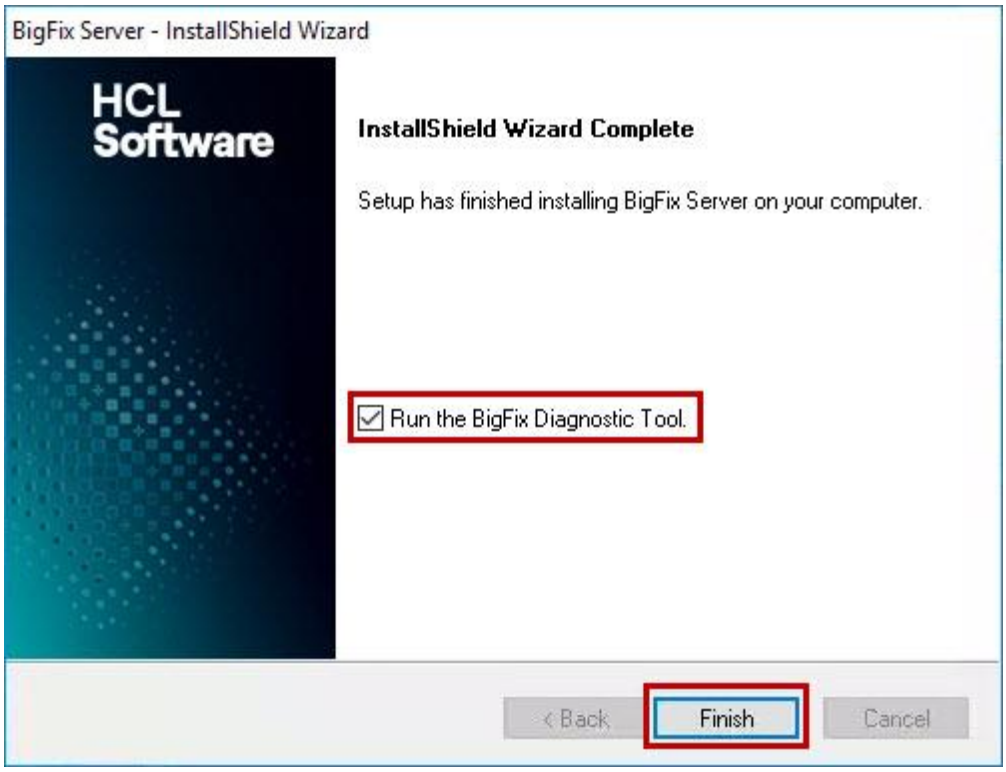


The installation of the BigFix server begins. This will take several minutes to complete.

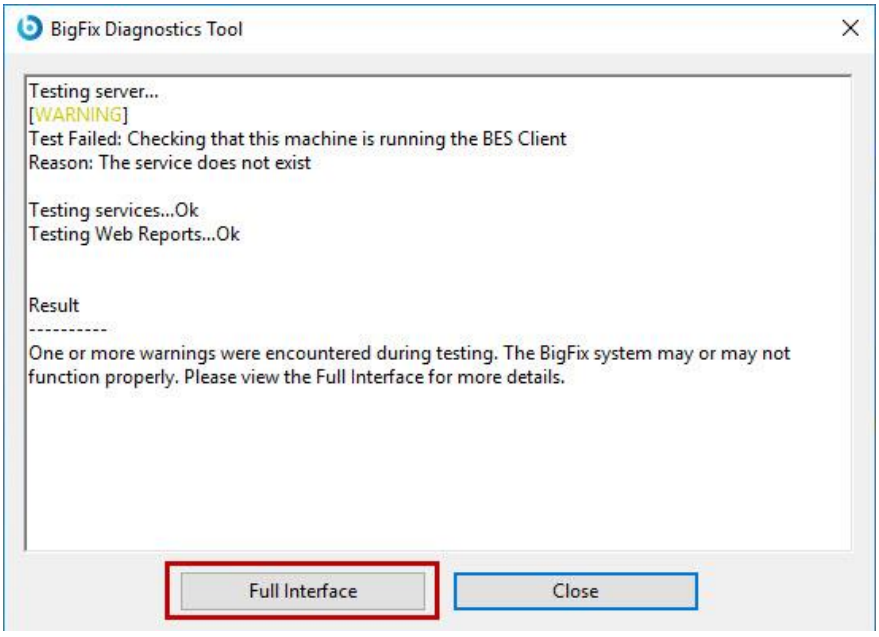
During the BigFix Server installation the primary BigFix database (BFEnterprise) and the Web Reports database (BESReports) are created.



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

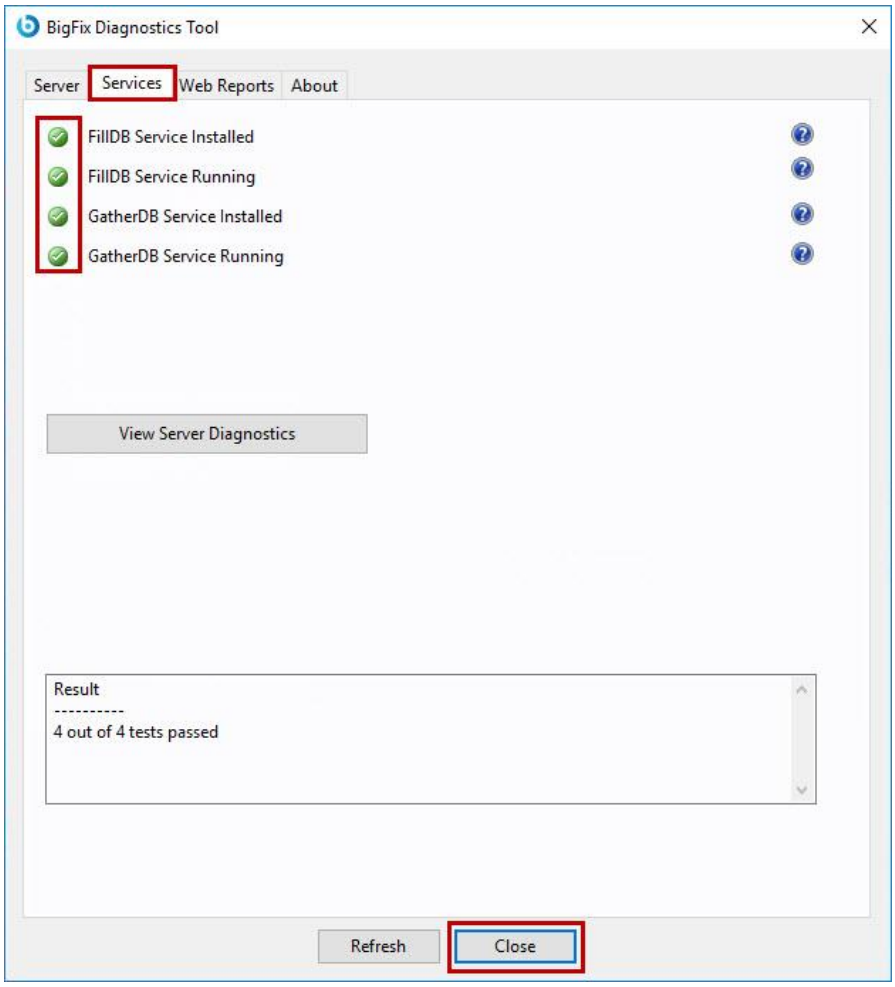


The BigFix Server Diagnostics pane opens. Click **Full Interface**.



The BigFix Diagnostics Tool opens with the full interface.

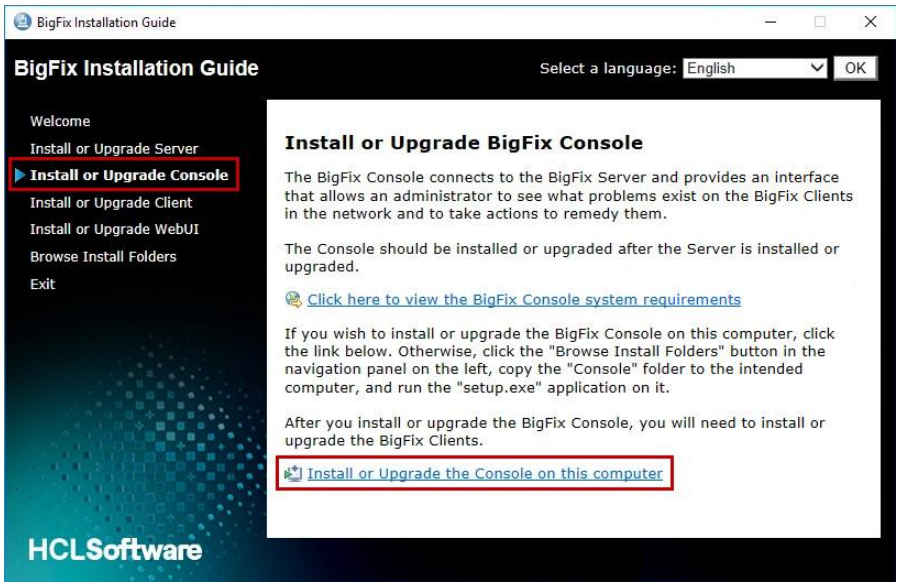
____25) Select the **Services** tab and verify that the four BigFix services have a green check mark beside them.



____26) Click **Close**. The BigFix Diagnostics Tool closes.

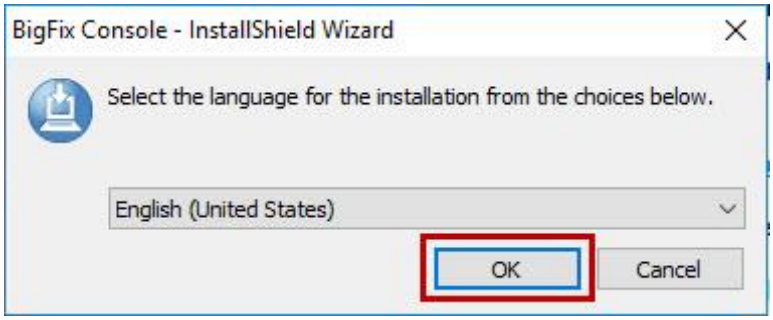
____27) Return to the **BigFix Installation Guide**.

____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**.



The Welcome screen is displayed.

____30) Click **NEXT**. The Destination Folder pane is displayed.

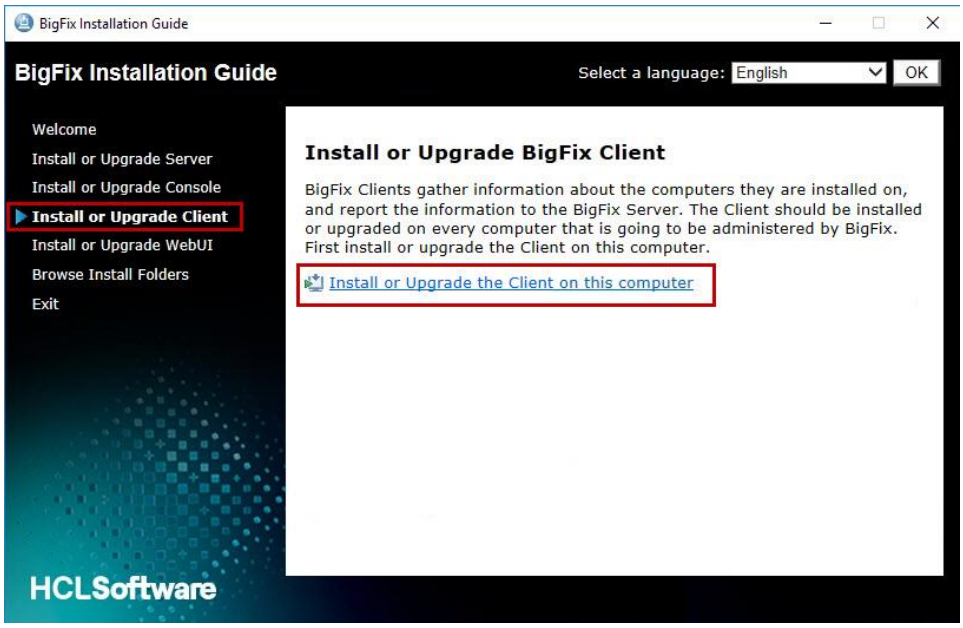
____31) Accept the default destination folder and click **NEXT**.

____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.



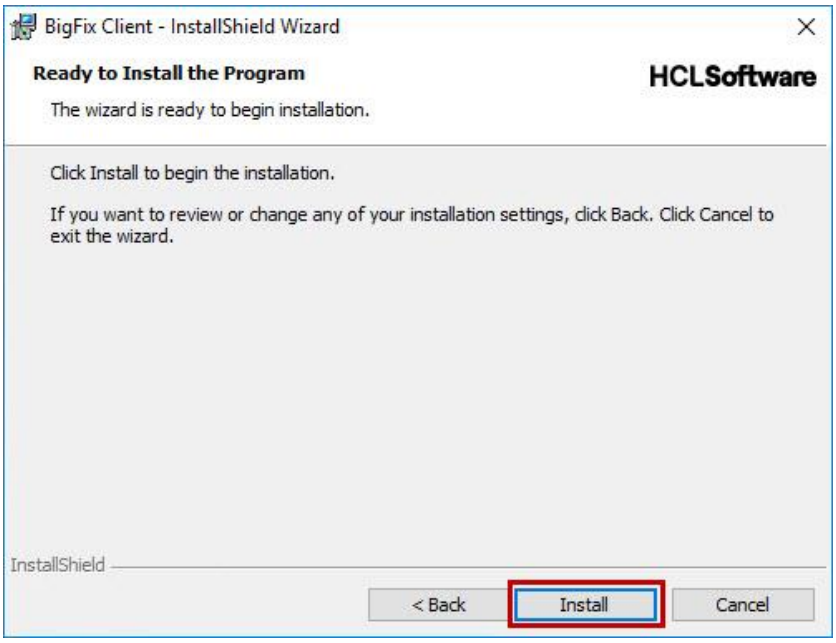
The BigFix Client – InstallShield Wizard opens.

____35) Verify that **English** is selected and click **OK.** The Welcome pane is displayed.

____36) Click **NEXT**. The Destination Folder pane is displayed.

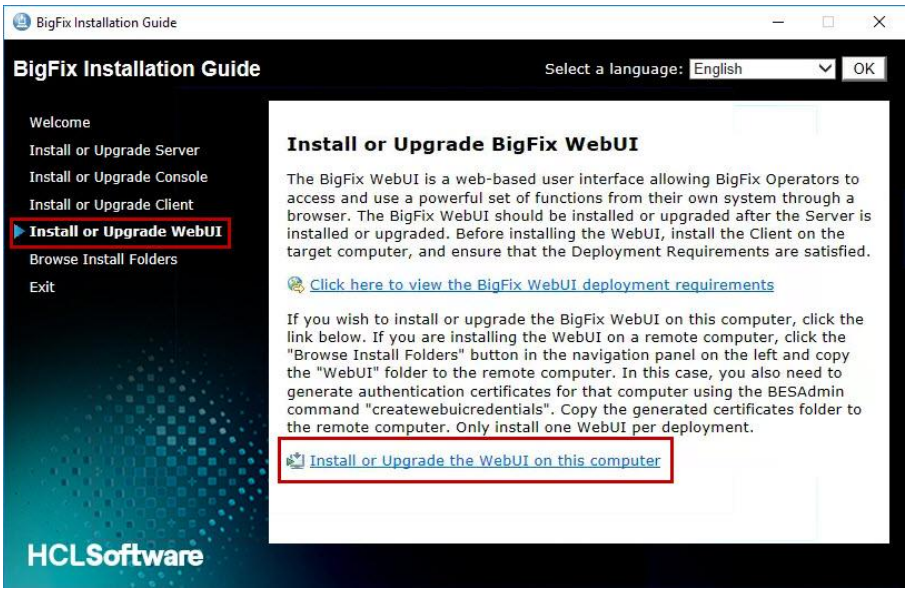
____37) Accept the default location and click **NEXT**. The Ready to Install the Program pane is displayed.

____38) Click **INSTALL** to begin the installation of the BigFix client.



____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.

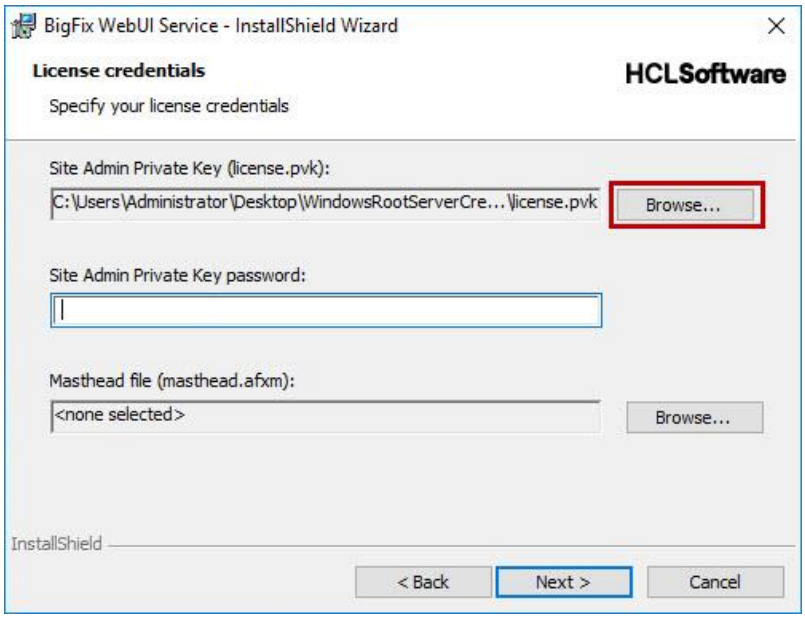


The WebUI Service – InstallShield Wizard pane opens.

____41) Verify that **English** is selected and click **OK.** The Welcome pane is displayed.

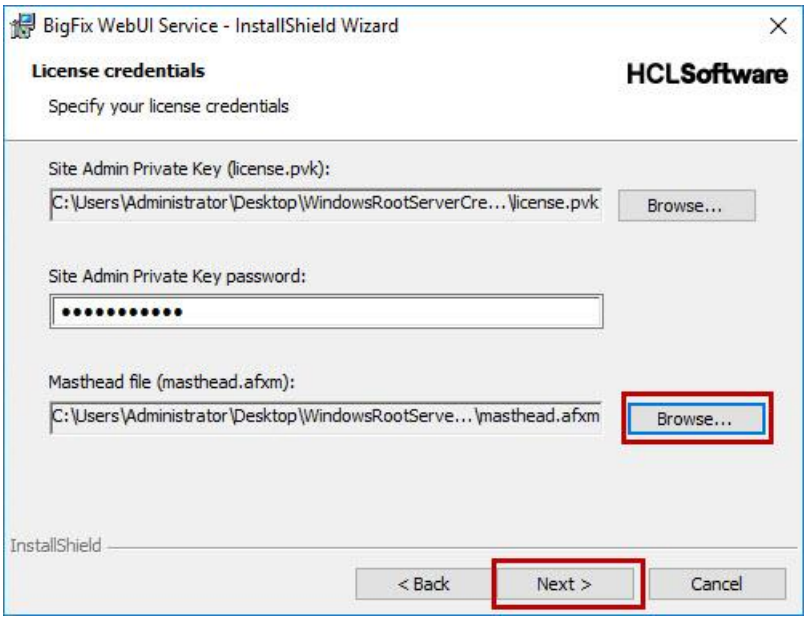
____42) Click **NEXT.** The License Credentials pane is displayed.

____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**.



____44) Enter **B1gfixrocks** in the **Site Admin Private Key password field**.

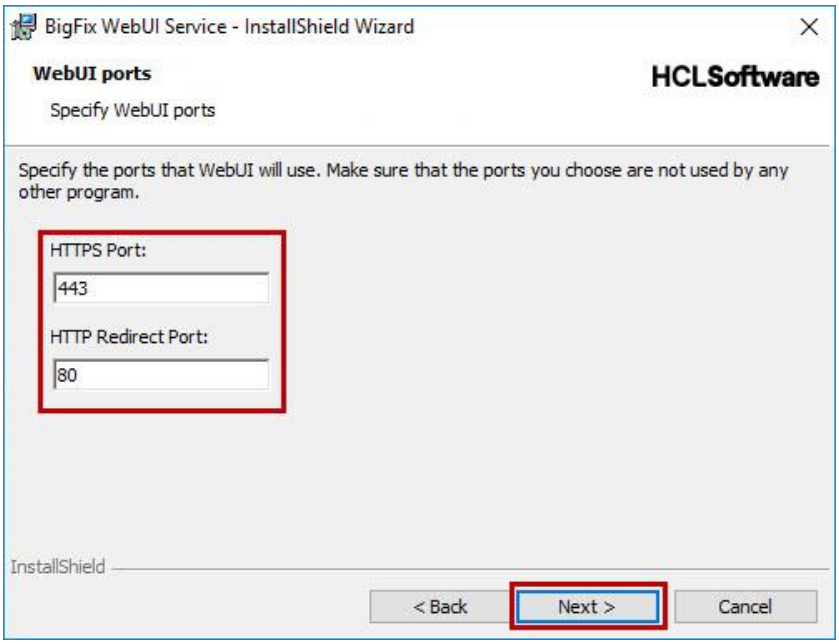
____45) Click **Browse** beside the **Masthead file** field and select the **masthead.afxm** file from the **\WindowsRootServerCredentials\Windows** folder on the Windows desktop, then click **Open**. Click **NEXT** to continue.



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**.



The Database Server pane is displayed.

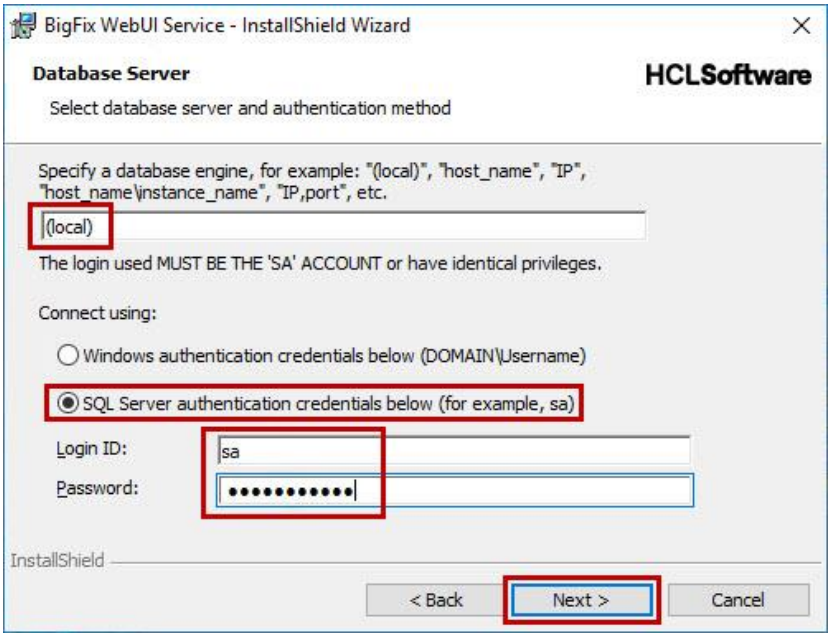
____48) Enter the Database Server connection credentials as follows:

___a) Database Engine field: **(local)**

___b) Select the **SQL Server Authentication Credentials** option

___c) Login ID**: sa**

___d) Password: **bigfixrocks**



____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.

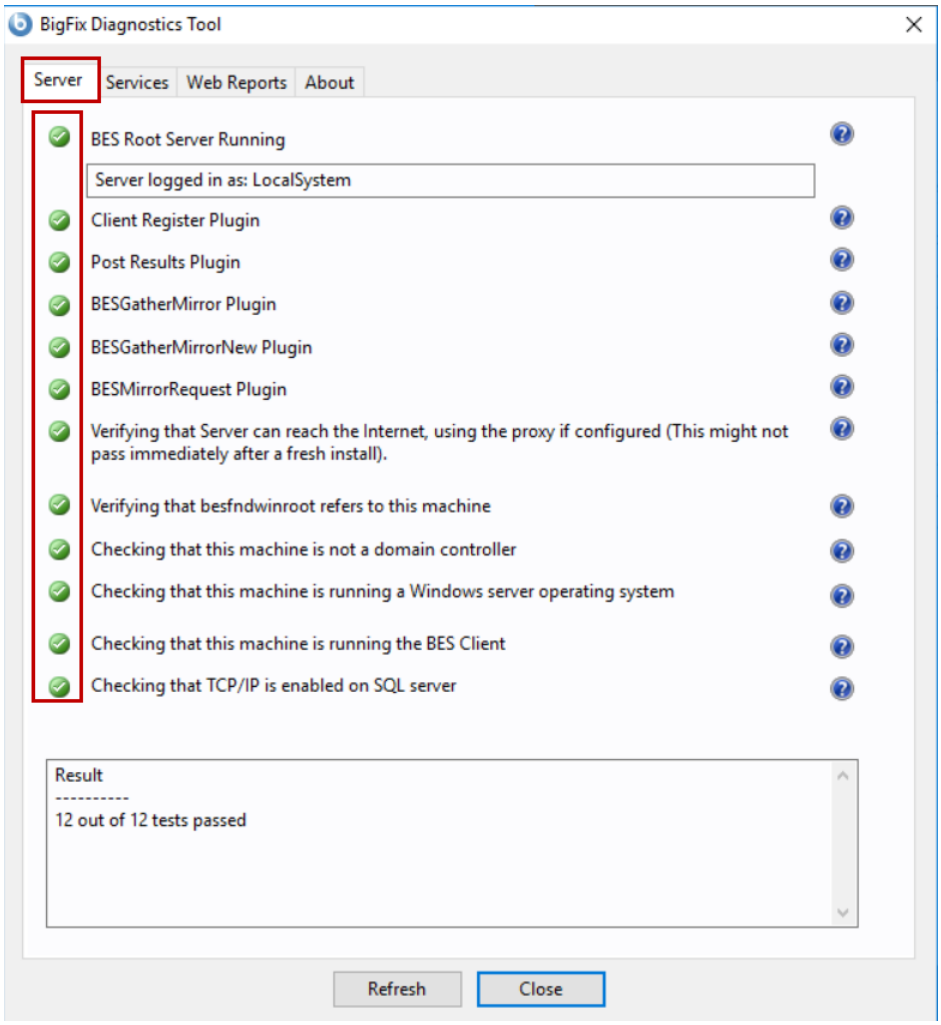
____4) Enter **adminmo** as the user name, and enter **B1gfixrocks** as the password. Click **Login.** The Console opens.

You have now successfully completed Exercise 3.

Exercise 4 - Validate the Root Server

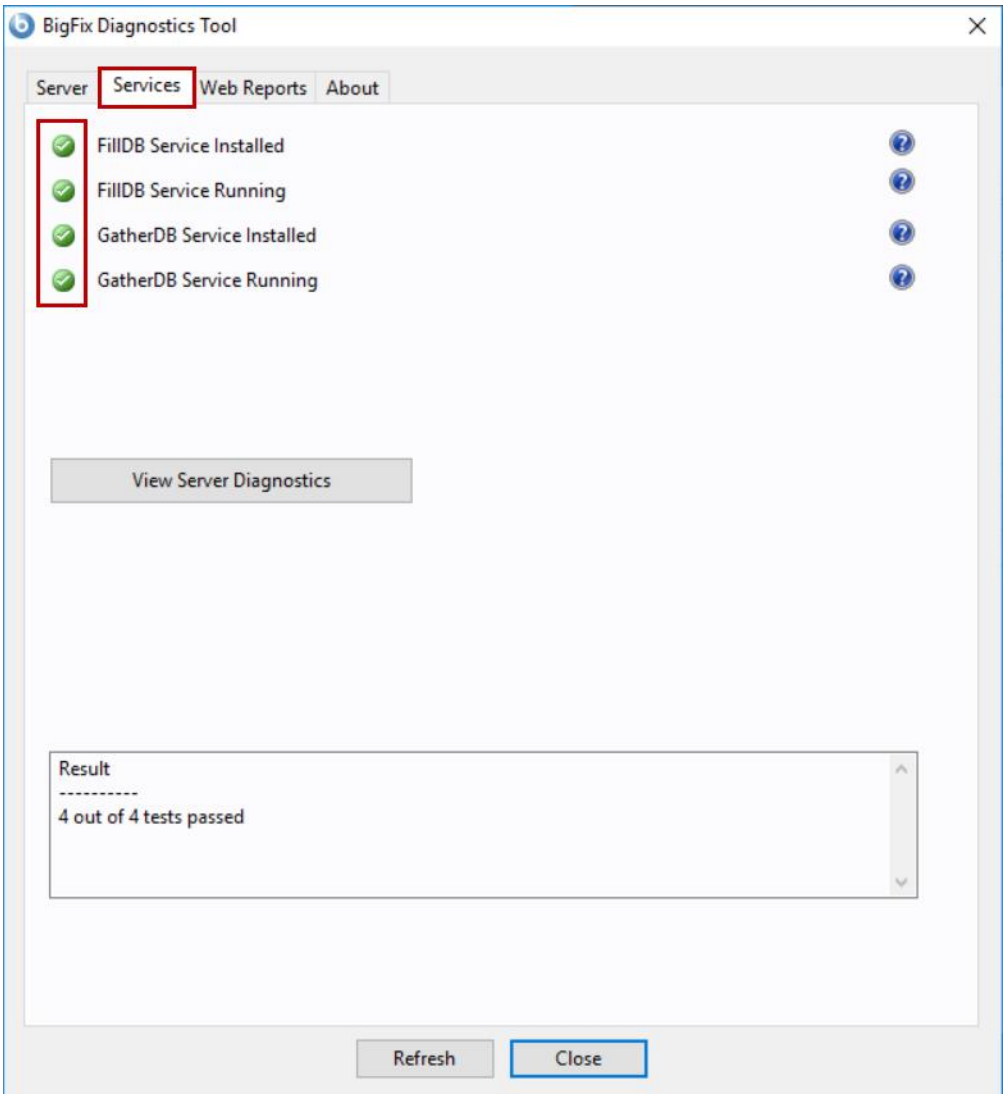
In this exercise, you will configure the BigFix Server.

____1) From the **Windows Start** menu select **BigFix -> BigFix Diagnostics Tool**. The BigFix Diagnostics Tool opens.

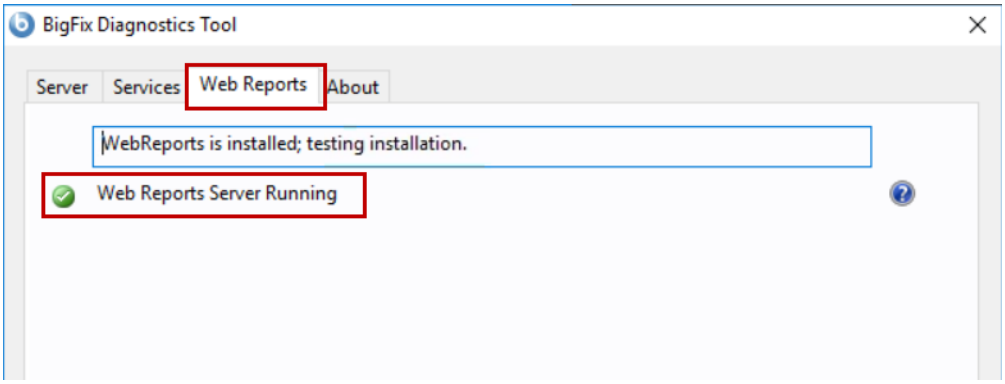


____2) Select the **Server** tab if it is not already selected and verify that there is a green checkmark beside all the checks.

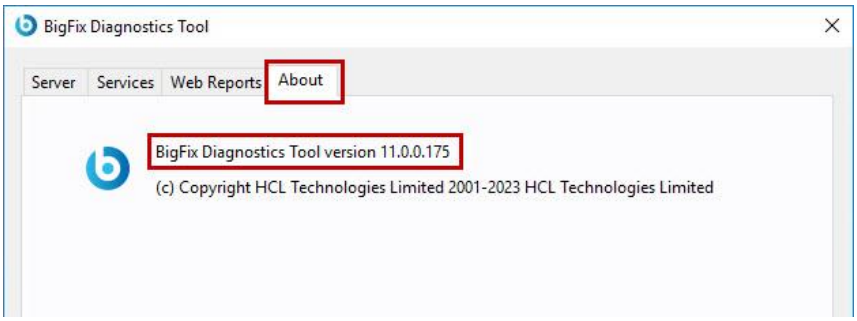
____3) Select the **Services** tab**.** Verify that there is a green checkmark beside all the BigFix services.



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



____5) Select the **About** tab. Verify that the **Server Diagnostics version** matches the version of the BigFix platform that you installed.

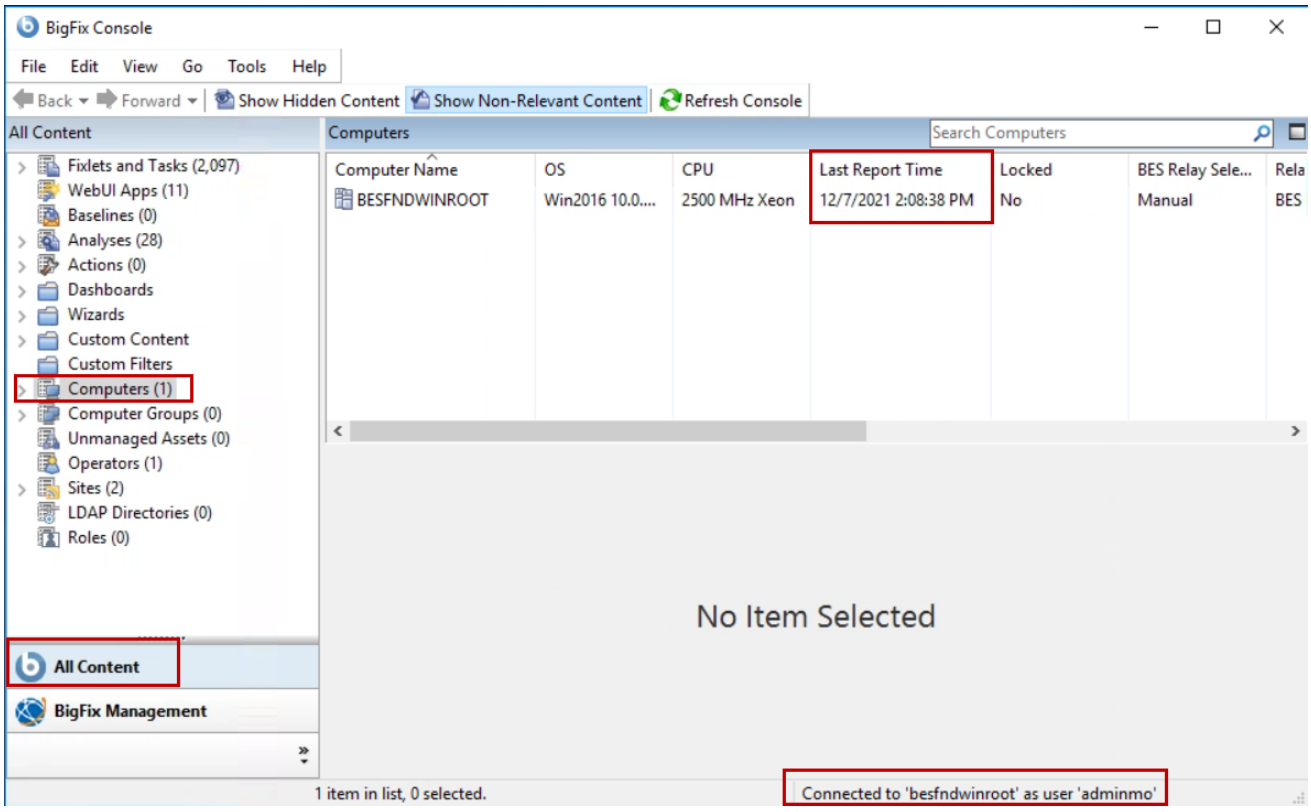


____6) Click **CLOSE**. The BigFix Diagnostics Tool closes.

____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

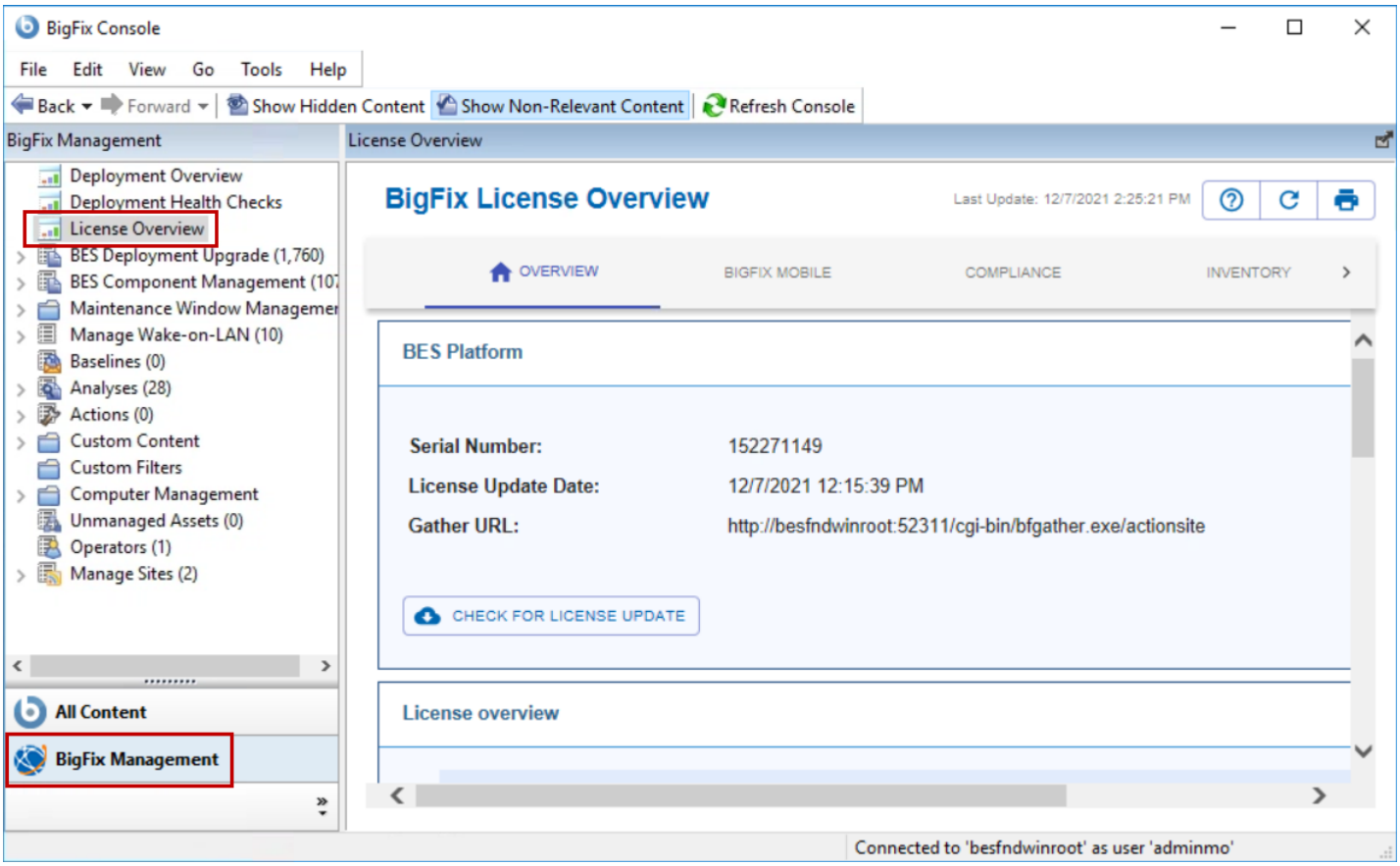
MASTER OPERATOR REQUIRED

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**.

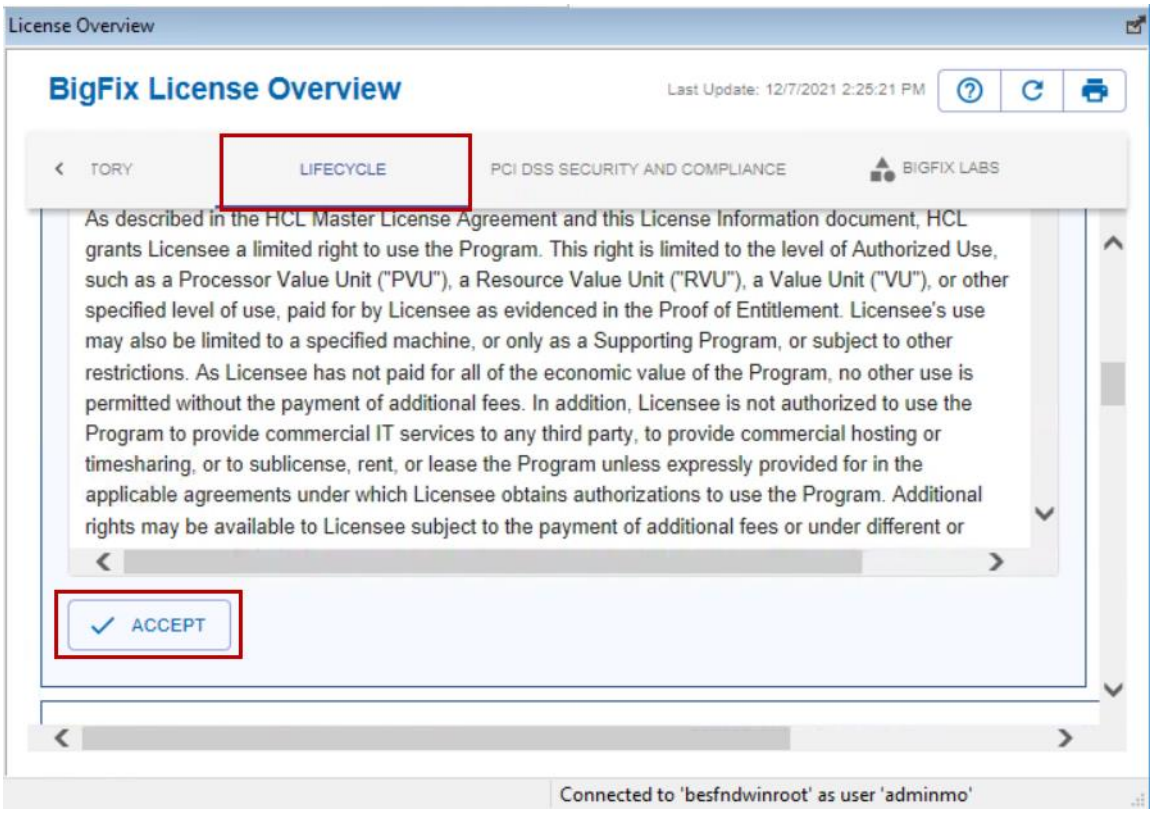
____2) Click the **BigFix Management** domain in the lower-left portion of the Console. The navigation pane is updated to show only content from the BigFix Management domain.

____3) Select **License Overview** in the navigation pane. The License Overview dashboard opens.

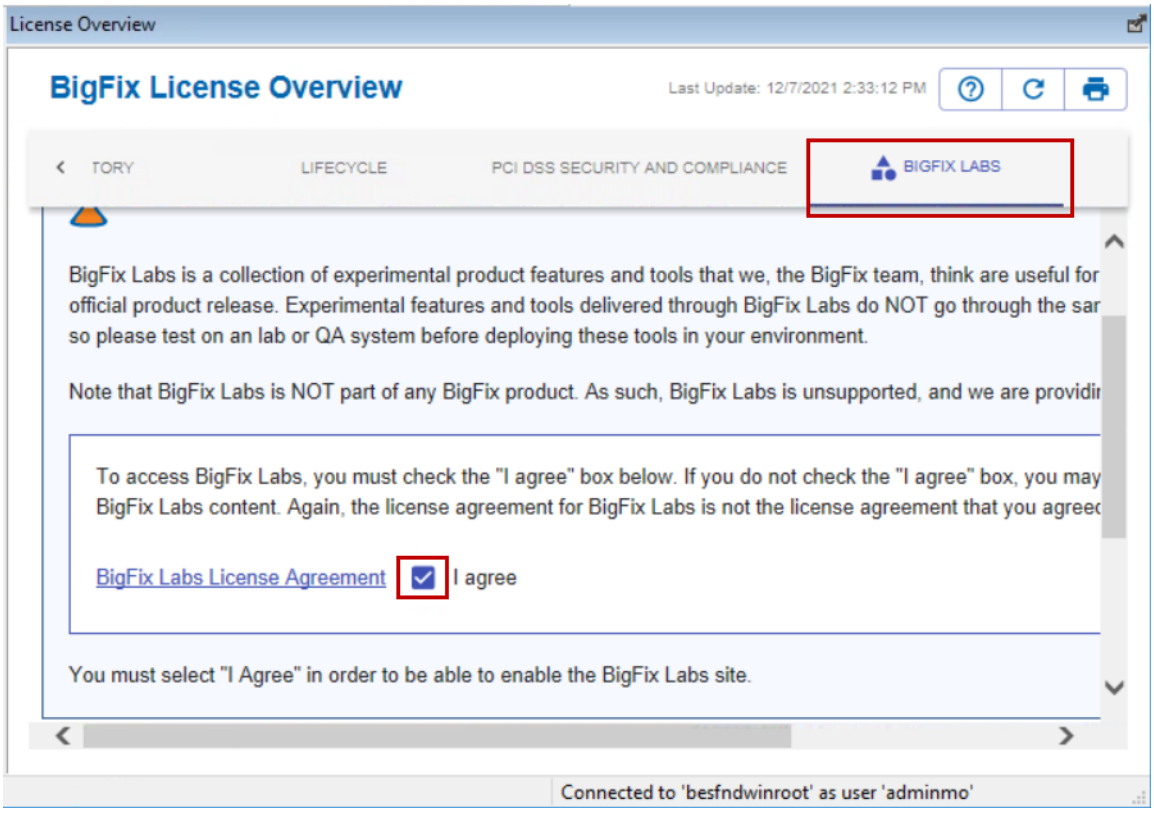


____4) Using the arrow in the upper-right portion of the License Overview dashboard, scroll to the right until you locate **Lifecycle**. Click **LifeCycle**. The **Product EULA Info** for **LifeCycle** is displayed in the lower portion of the dashboard.

____5) Scroll down and click **Accept**. The dashboard view updates to show a list of external sites that are associated with the LifeCycle domain.



____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.



____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.

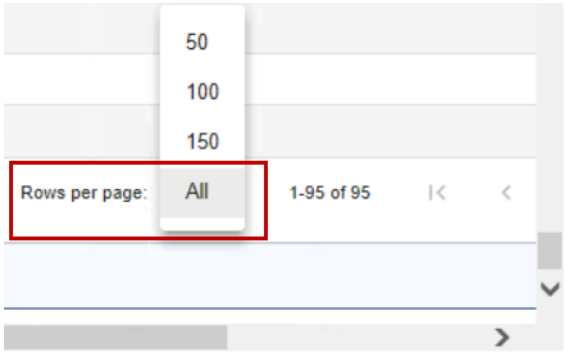
___f) Patching Support

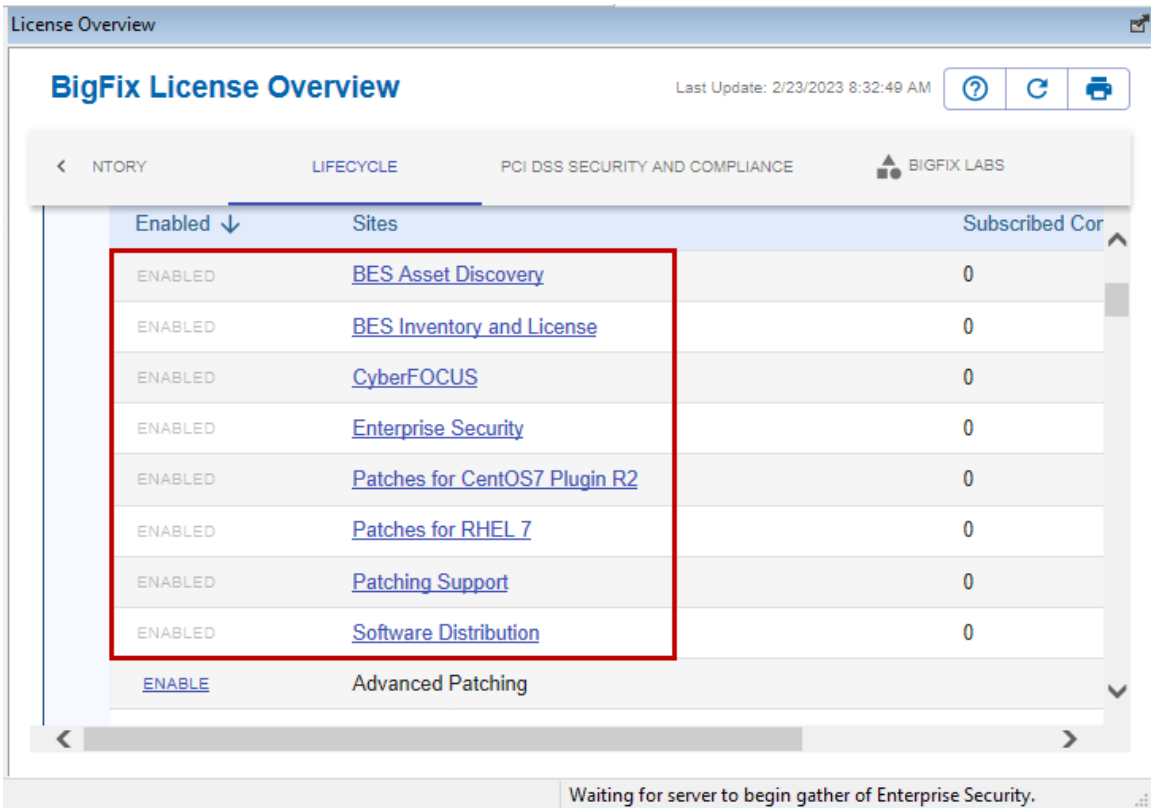
___g) Software Distribution

___h) Updates for Windows Applications

___i) cyberfocus

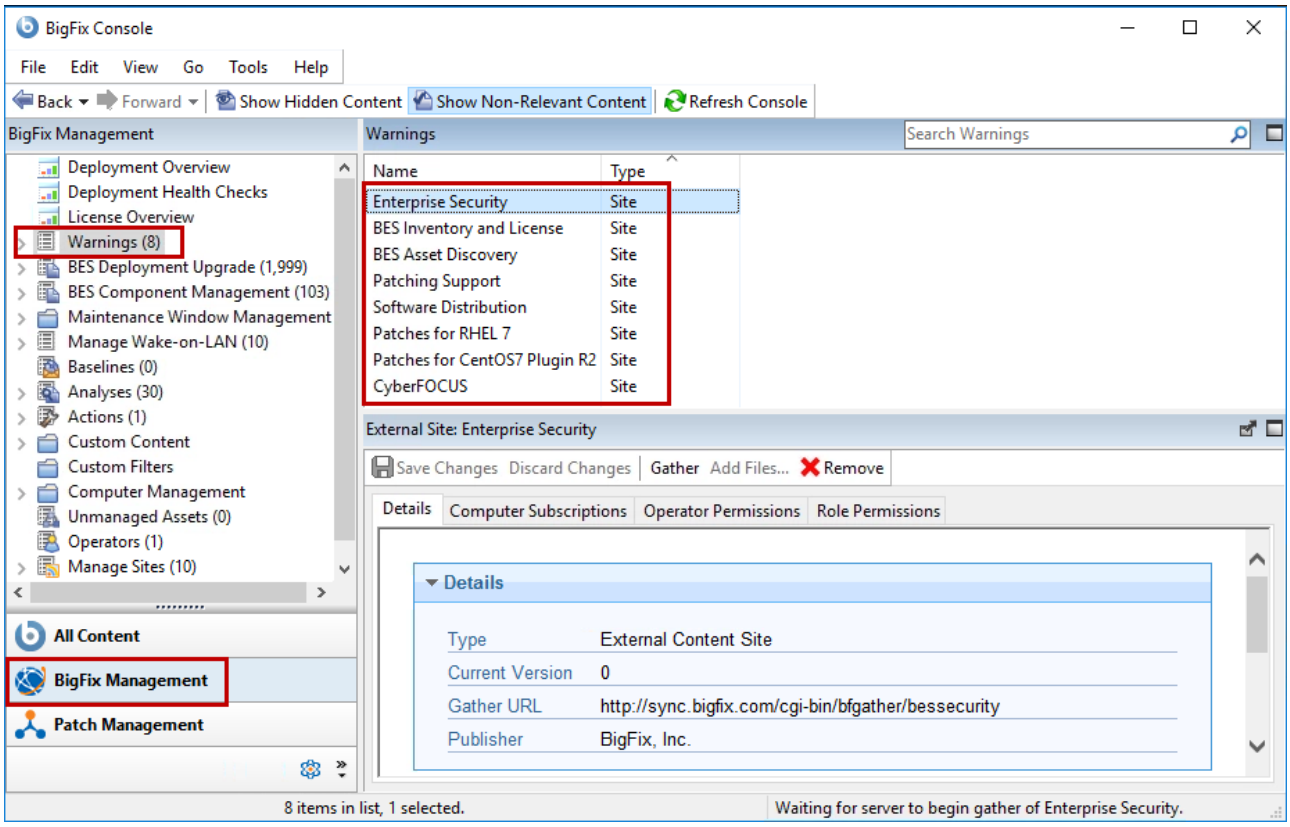
Important: The License Overview dashboard displays 50 sites at a time by default. You might have to change the displayed Rows per page at the bottom of the dashboard to locate every all of the external sites in the list.





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.

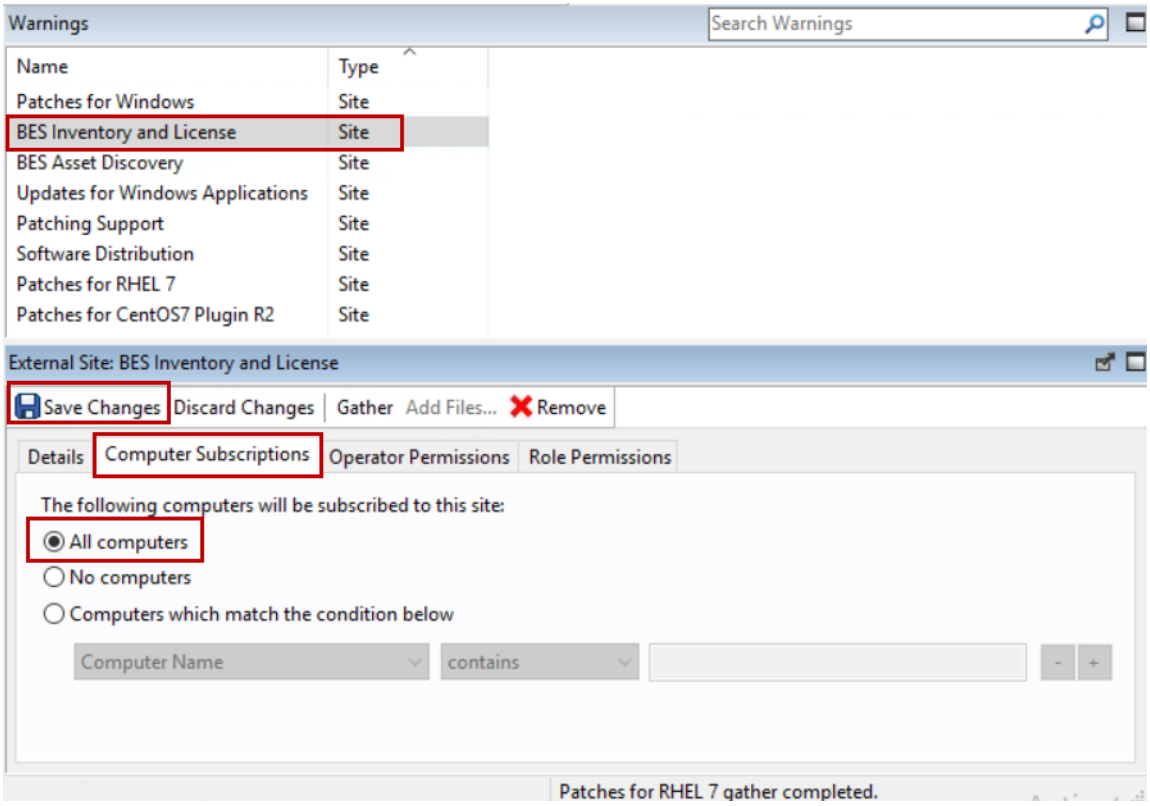
____9) Select the **BigFix Management** domain in the lower-left portion of the Console and then click the **Warnings** node in the navigation pane. The List pane is updated to show a list of the external sites that do not currently have computers subscribed.



____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.



____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

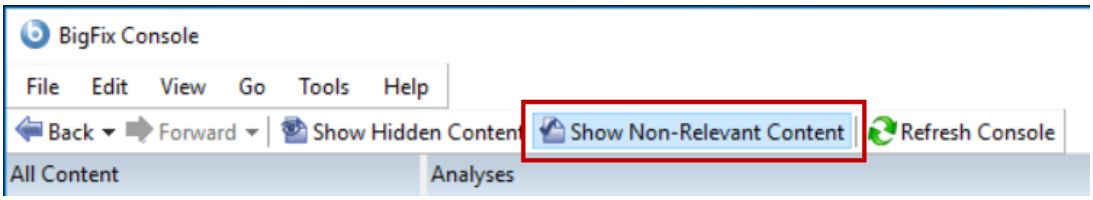
MASTER OPERATOR REQUIRED

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.

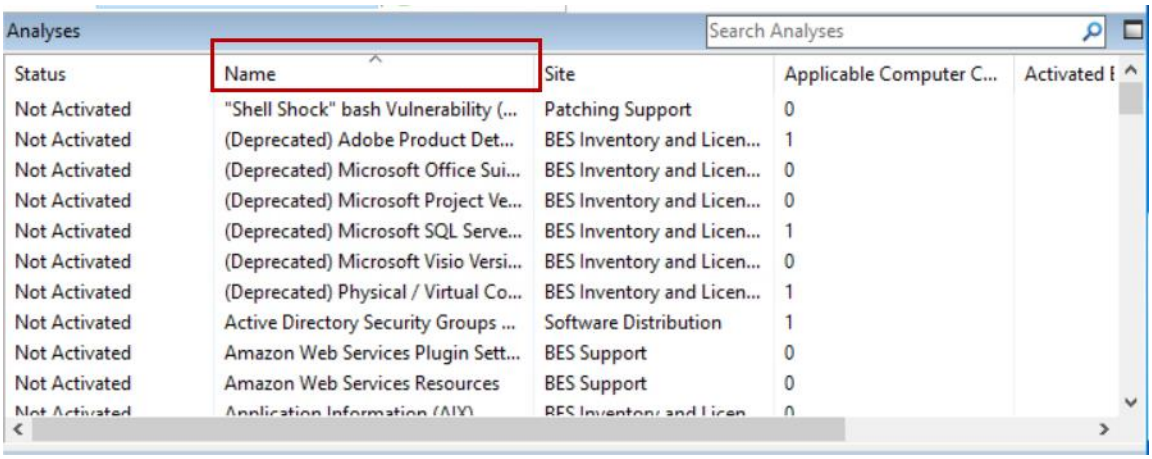
____1) Return to the **BigFix Console**. If you are logged off, log in as **adminmo** with a password of **B1gfixrocks**.

____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.

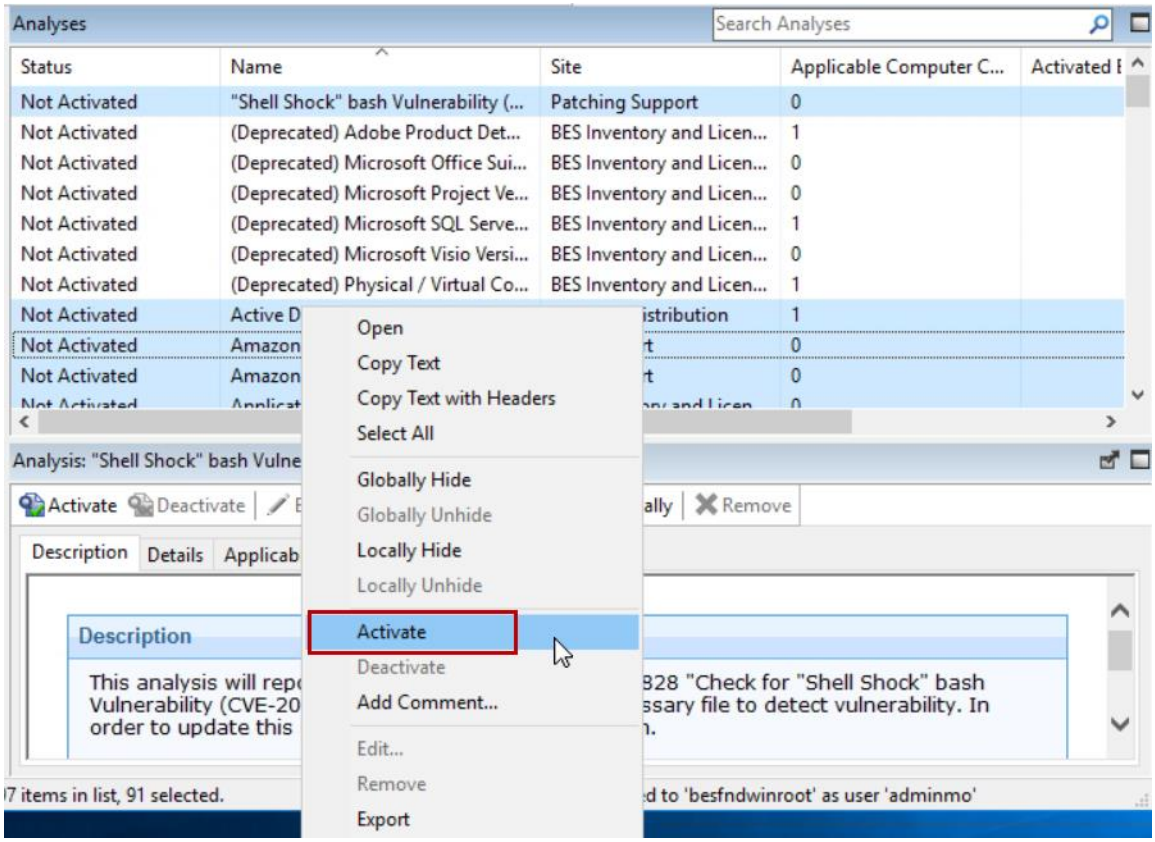


____4) Click the **Name** column in the **List Area** of the **Console**. The Analyses are sorted in ascending order by their name and an arrow appears above the Name column to show the sort order for the display.

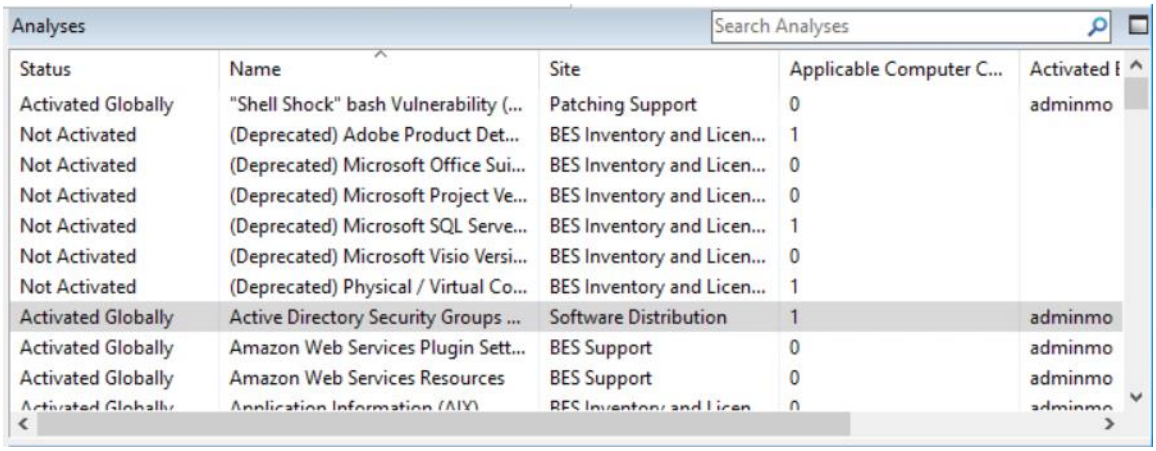


____5) Select any **Analysis** in the list. You can then type **Ctrl-A** to select every **Analyses** in the list and then while depressing the **Ctrl** key select each of the **Analyses** with **(Deprecated)** in the name. The result is that all Analyses except the Deprecated ones are selected.

____6) **Right-click** in the list-area over any selected **Analysis** and choose **Activate** from the **Context** menu.



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



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.

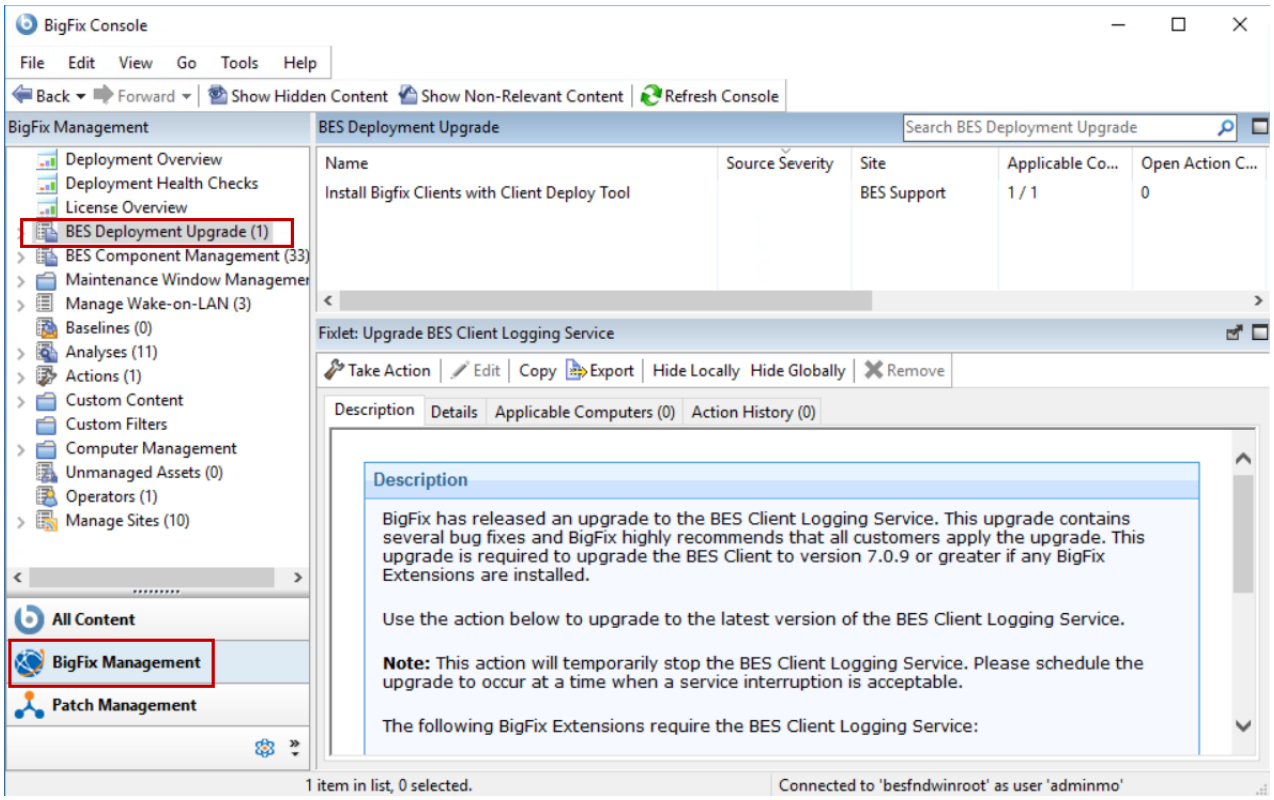
Important: Installing agent remotely using the Client Deploy Tool has sever prerequisites. **There are several things that will prevent this from working as desired in this lab.** None of which BigFix can address directly. These include things like ACL's, Firewall Rules, open ports, services configured 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: here. 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.



____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.

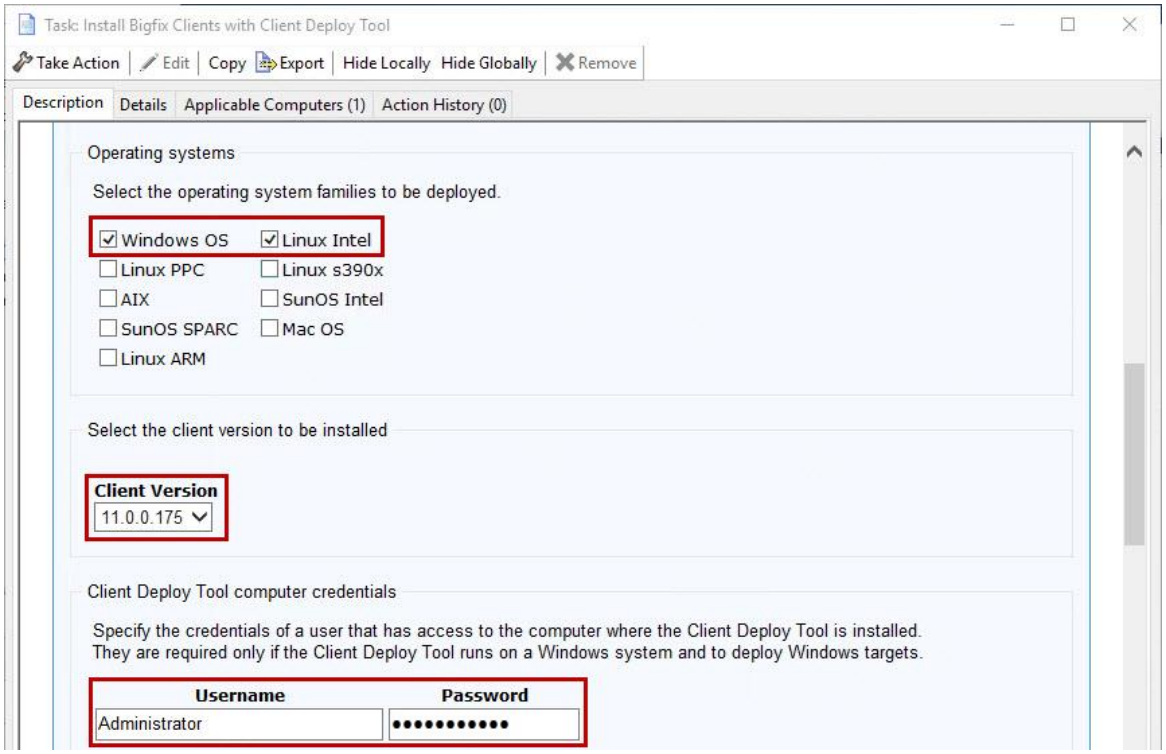
____6) Verify that the **Description** tab is selected in the work area. **Scroll down** in the **Description** tab and locate the parameters that must be entered on the Description tab before taking the action. Enter the parameters as follows:

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**

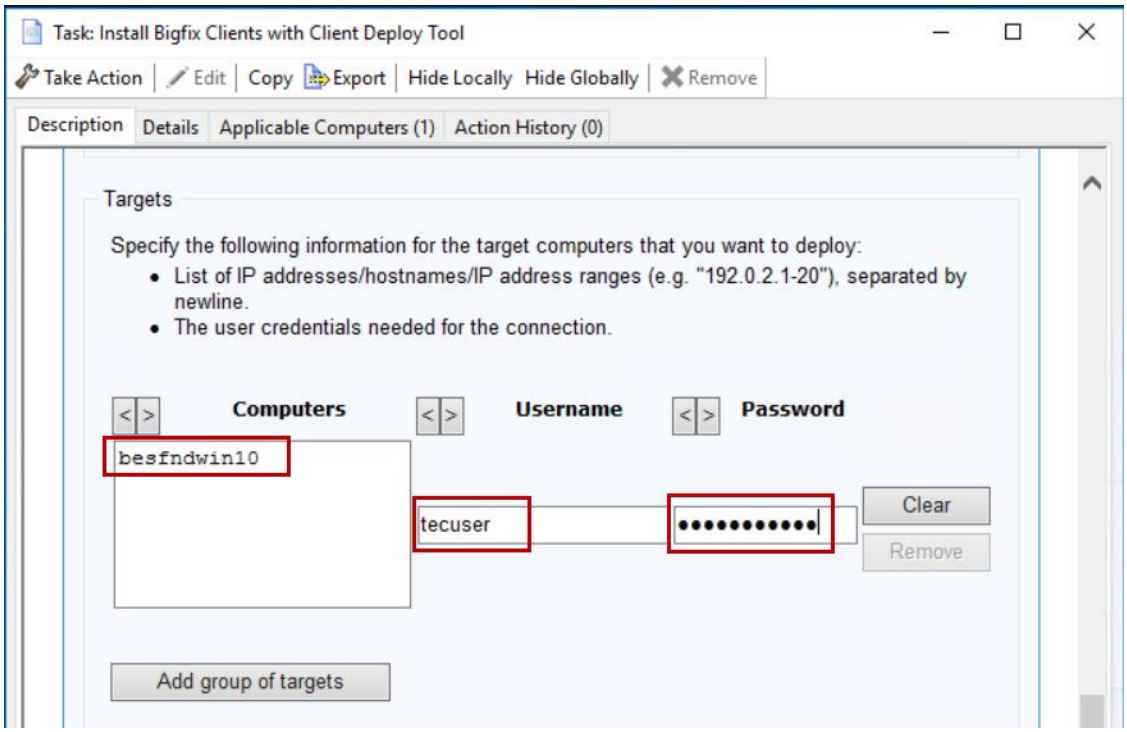


____7) Enter the following information for the **BESFNDWIN10** client in the **Targets** section of the **Description** tab:

___a) Computers: **besfndwin10**

___b) Username: **tecuser**

___c) Password: **bigfixrocks**



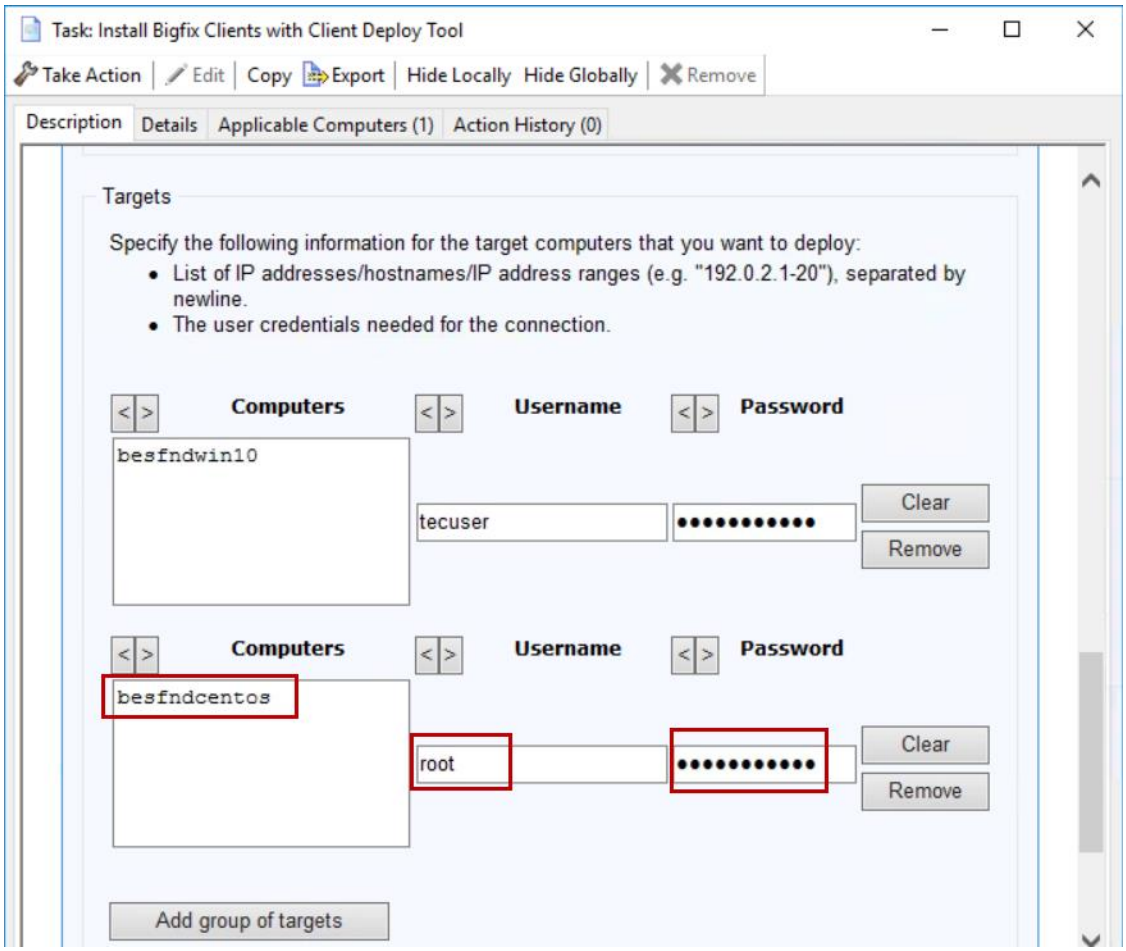
____8) Click **Add group of targets**. A new Computers section opens in the Description tab where you can specify the Linux target information.

____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**



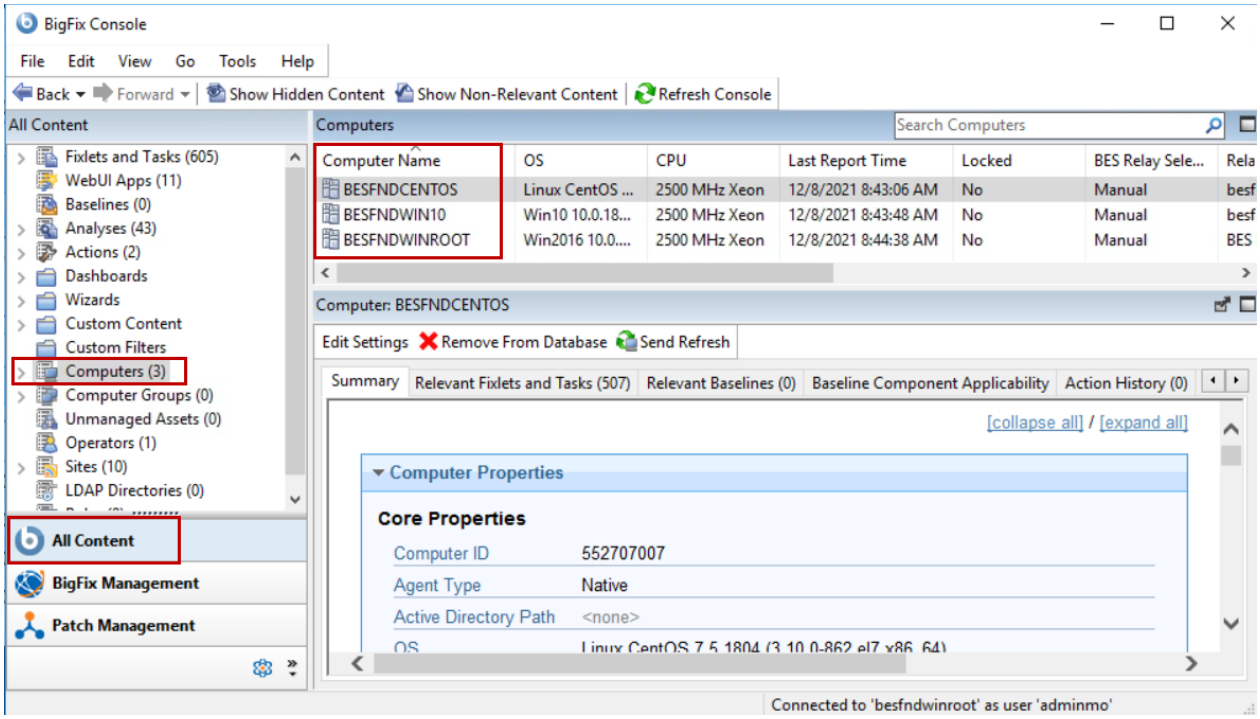
____10) Click **Take Action**. The Take Action window opens.

____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.



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

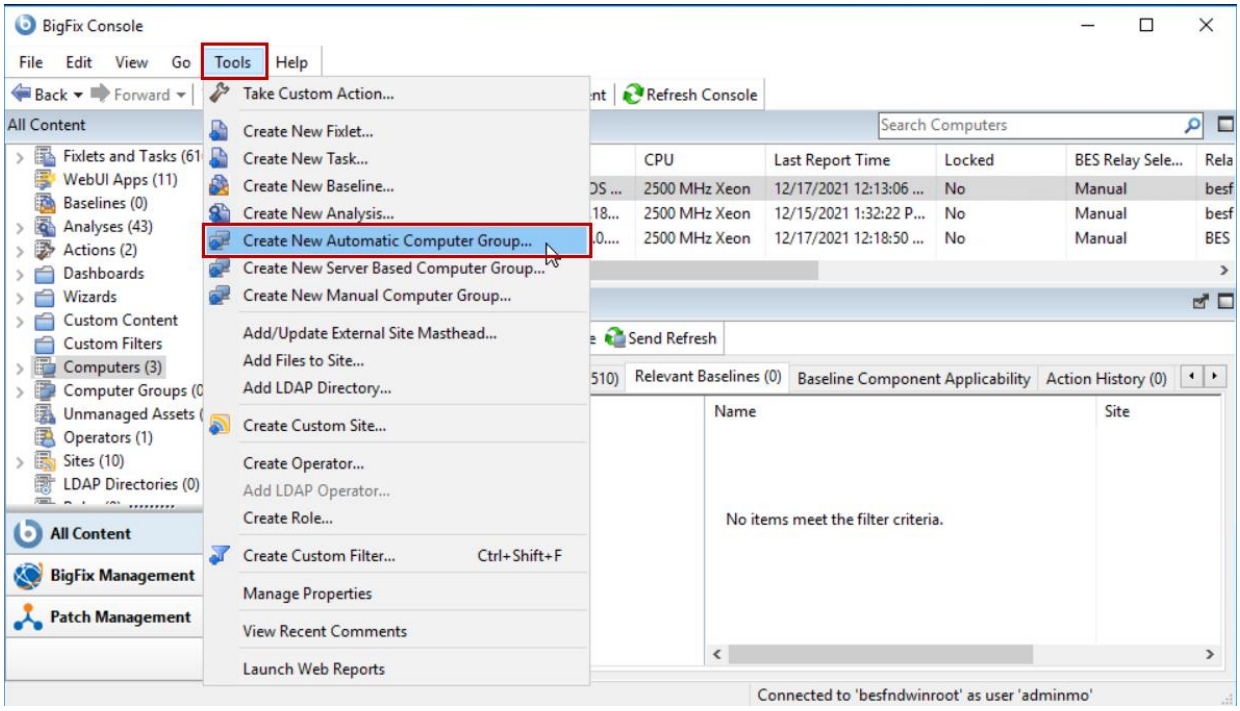
MASTER OPERATOR REQUIRED

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.



____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.

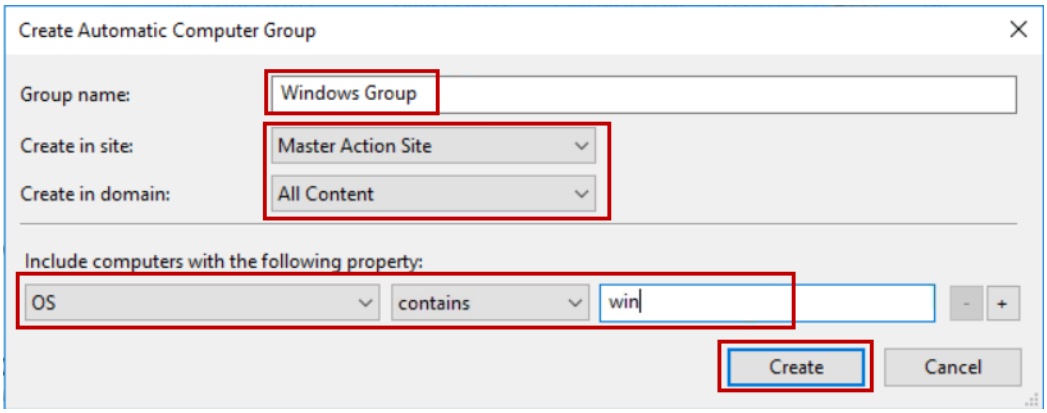
____6) Set the **Include Computers with the following property** filter as follows:

___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.

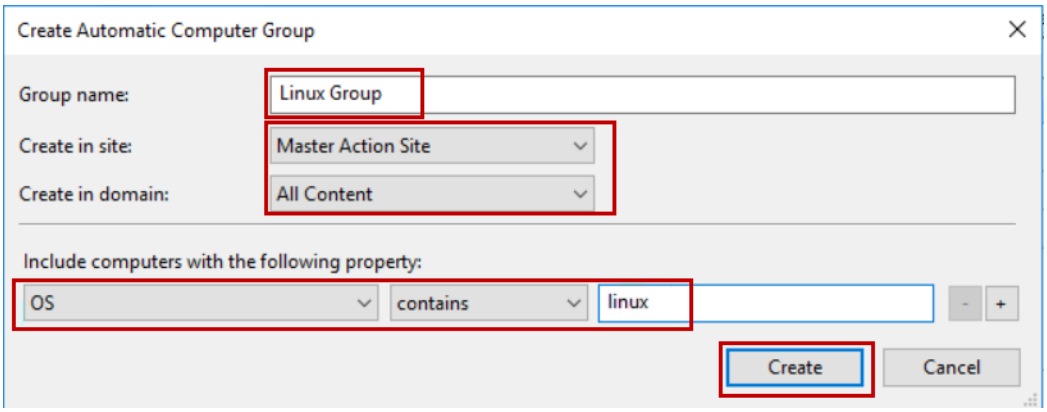
____7) Click **Create**.



____8) Repeat the steps above to create an Automatic Group for Linux. Set the Group name and filter property as follows:

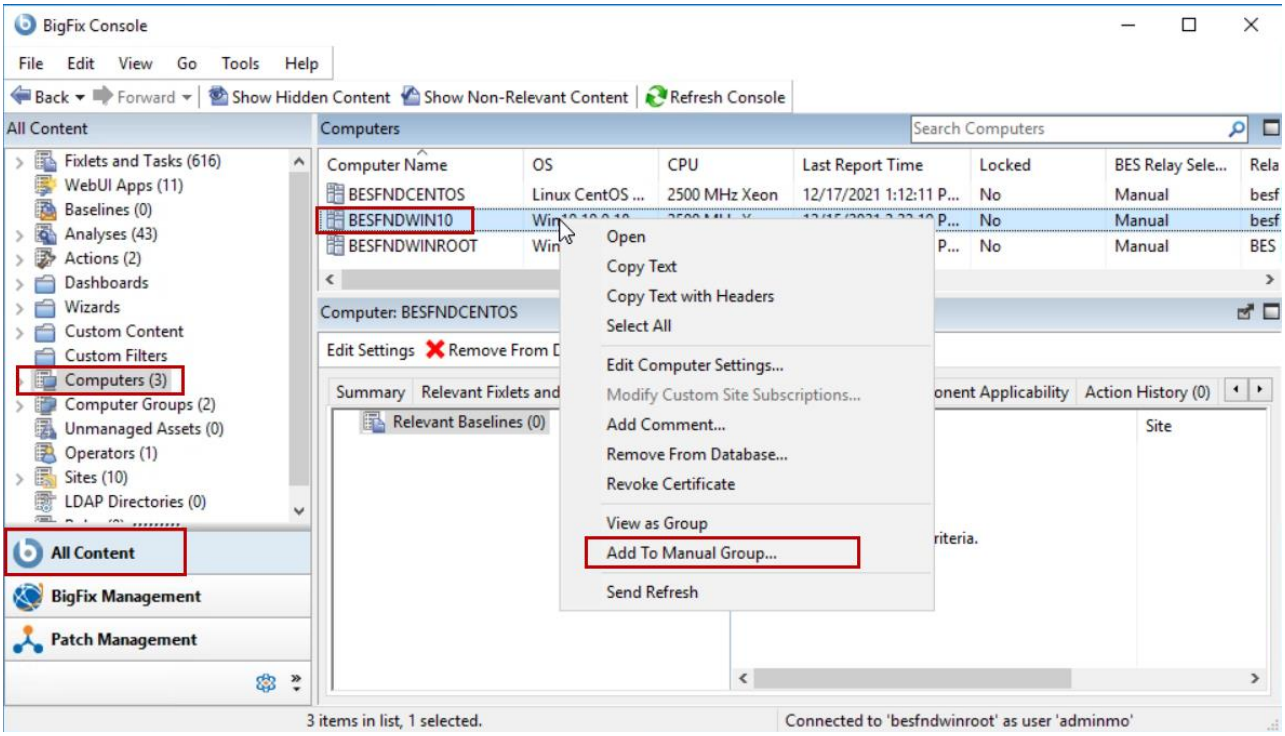
___a) Group name: **Linux Group**

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



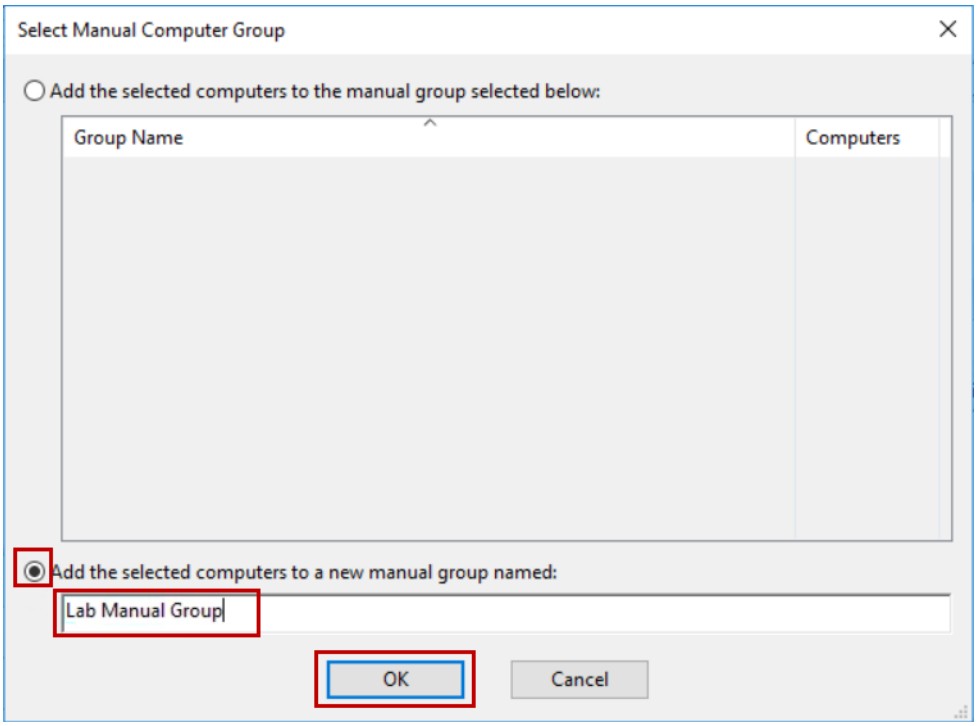
____9) Click **All Content** from the domain pane in the lower-left portion of the **Console** and then select the **Computers** node from the navigation pane. The list area in the upper-right portion of the Console updates to show the managed endpoints.

____10) Right click the **BESFNDWIN10** computer and select **Add to Manual Group** from the context menu.



The Select Manual Computer Group window opens.

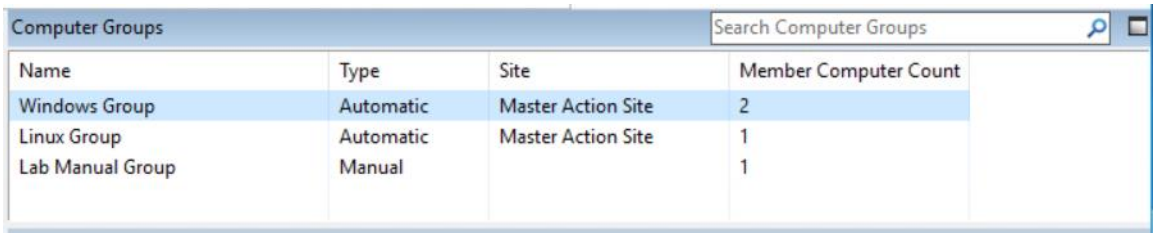
____11) Enter **Lab Manual Group** in the text field and click **OK**.



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.



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.

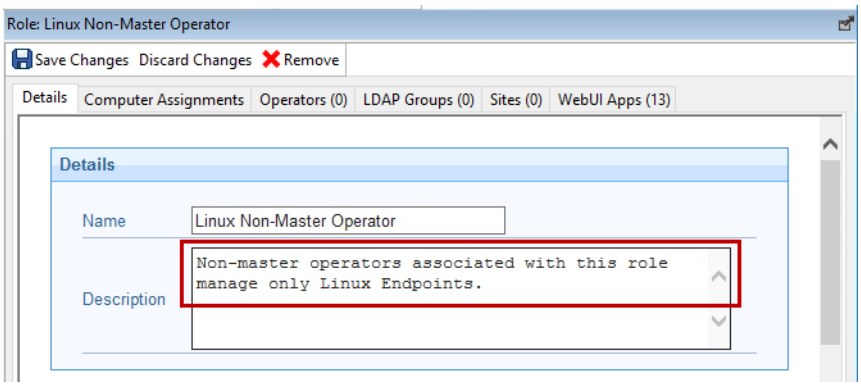
____1) Switch to the **BESFNDWINROOT** virtual machine and login to the **Console** using **adminmo** with a password of **B1gfixrocks**.

____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.



____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**

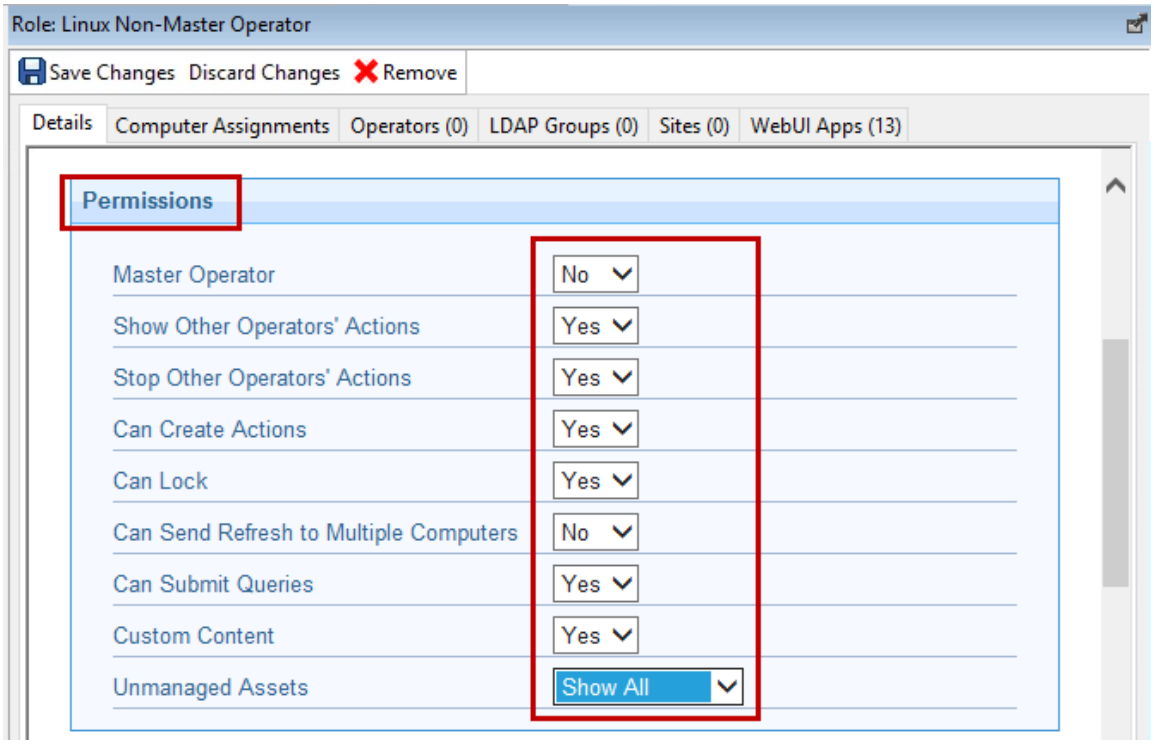
___e) Can Lock: **Yes**

___f) Can Send Refresh to Multiple Computers: **No**

___g) Can Submit Queries: **Yes**

___h) Custom Content: **Yes**

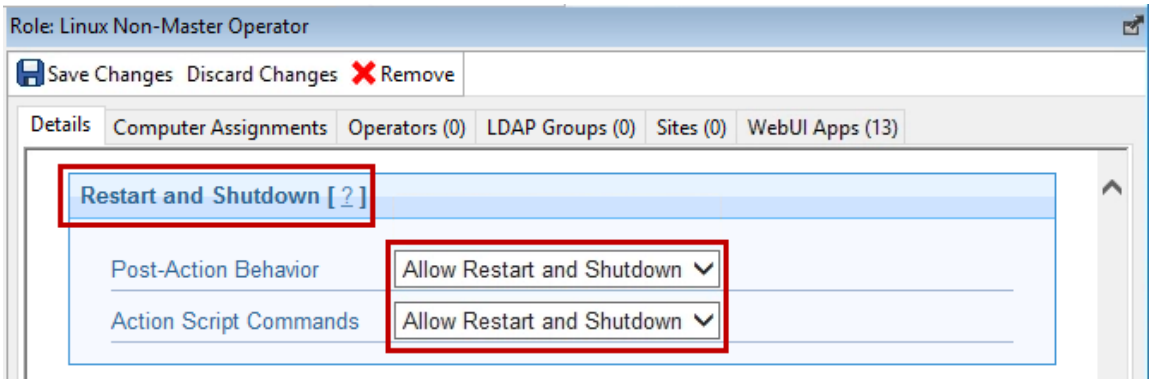
___i) Unmanaged Assets: **Show All**



____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**

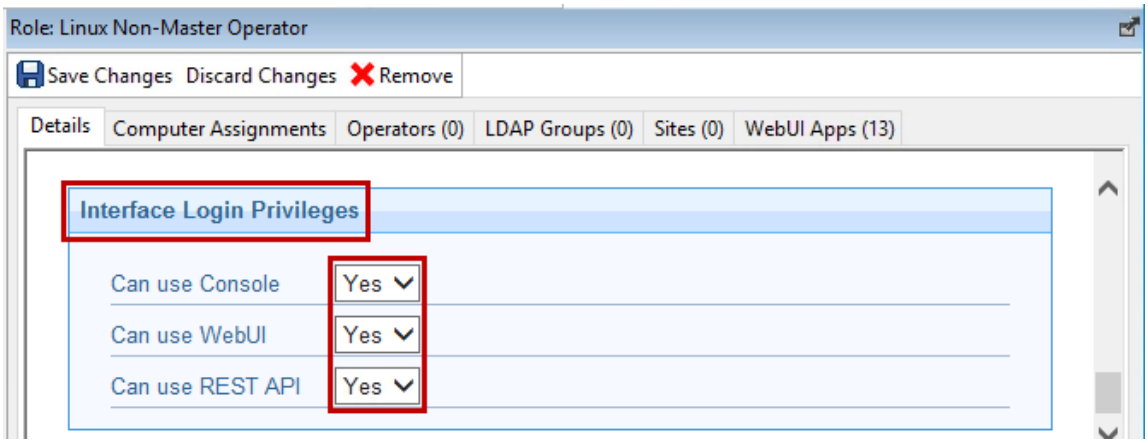


____7) Set the permissions in the **Interface Login Privileges** section as follows:

___a) Can User Console: **Yes**

___b) Can Use WebUI: **Yes**

___c) Can Use REST API: **Yes**



____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

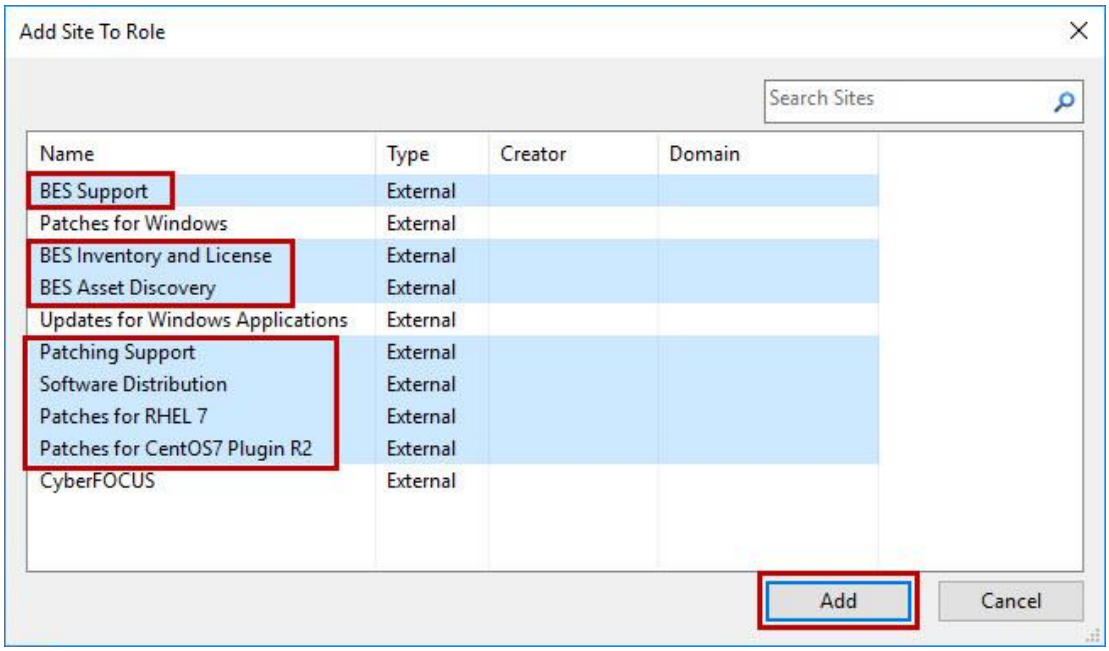
___c) BES Asset Discovery

___d) Patching Support

___e) Software Distribution

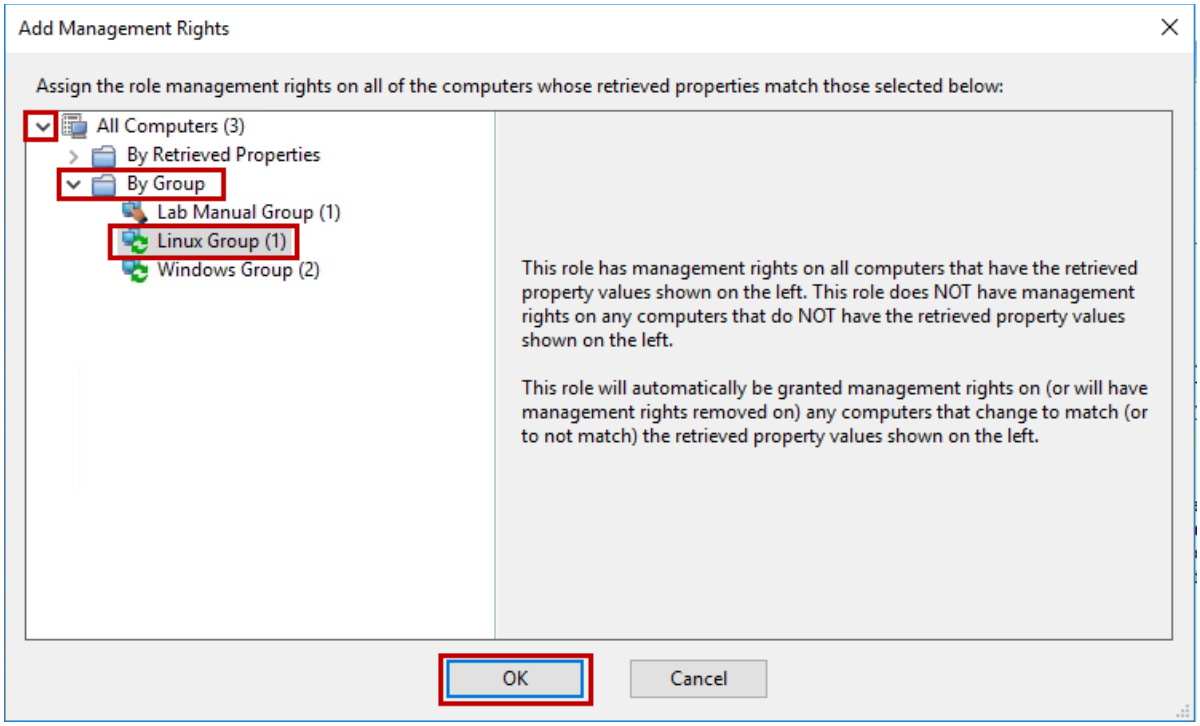
___f) Patches for RHEL 7

___g) Patches for CentOS7 Plugin R2



____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**.



____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

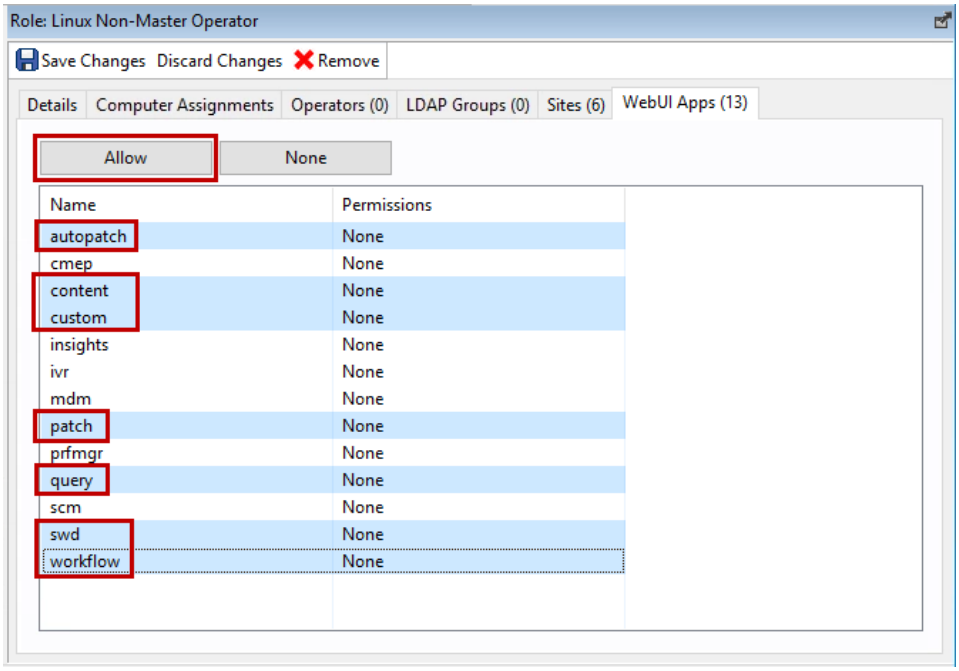
___c) custom

___d) patch

___e) query

___f) swd

___g) workflow



____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.

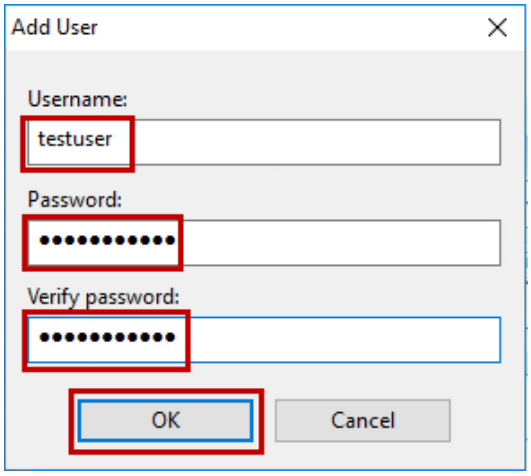
____15) Select **Tools > Create Operator** from the Console menu. The Add User window is displayed.

____16) Define the new local operator account by entering the following in the **Add User** window, then click **OK**.

___a) Username: **testuser**

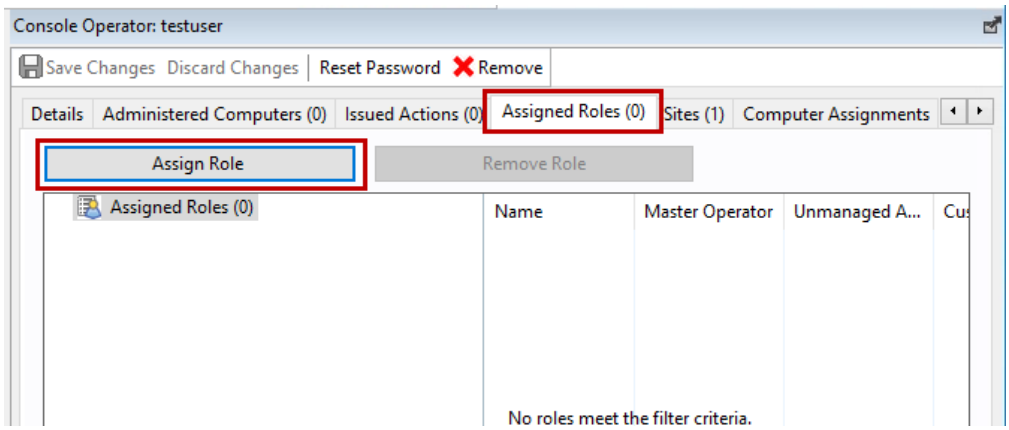
___b) Password: **B1gfixrocks**

___c) Verify password: **B1gfixrocks**



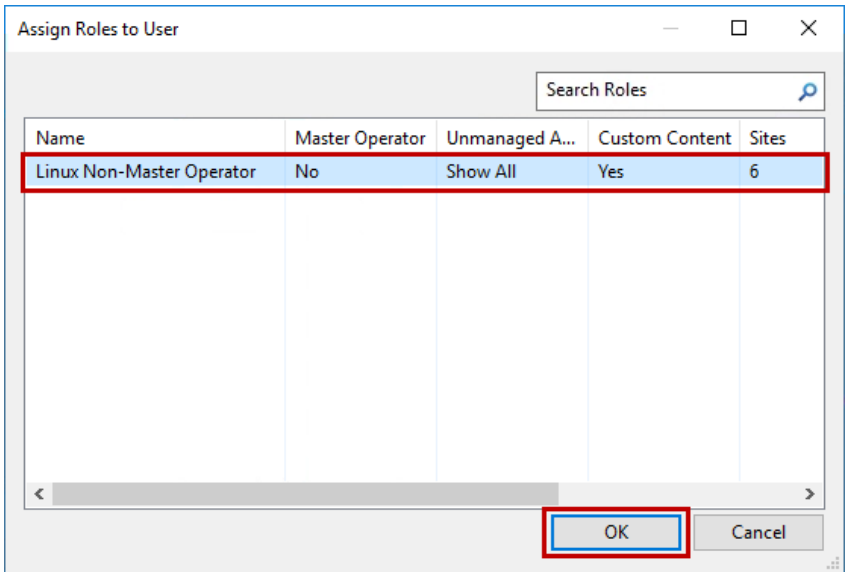
The Console Operator: testuser pane opens.

____17) Select the **Assigned Roles** tab at the top of the **Console Operator** pane.



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

____19) Select the **Linux Non-Master Operator** role and click **OK**



The Assign Roles to User window closes.

____20) Click **Save Changes** in the upper-left portion of the **Console Operator** window.

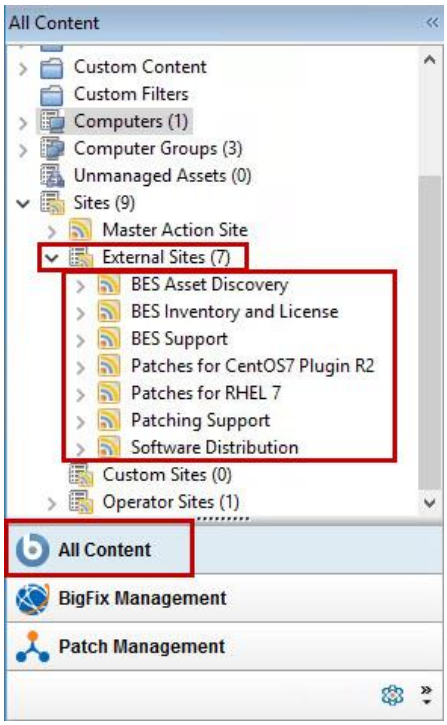
____21) Close the **BigFix Console**.

____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**.

____24) 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.

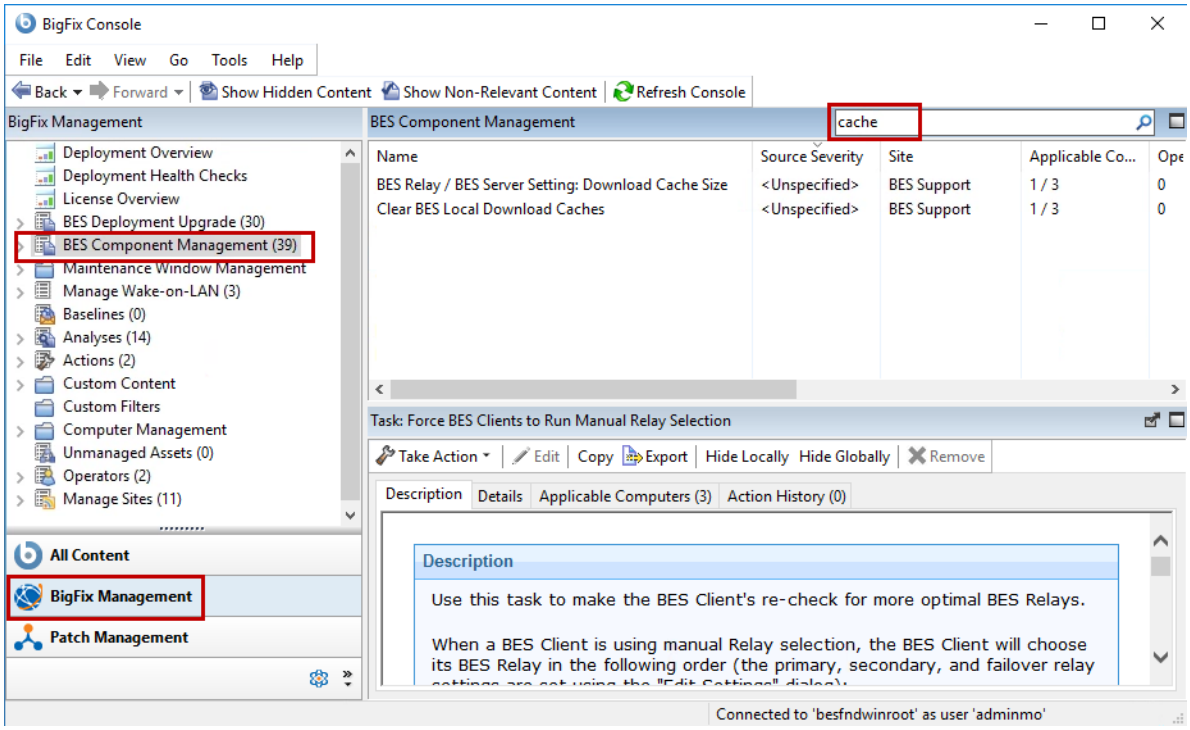
____2) Double-click the **BigFix Console** icon on the **Windows desktop**. The Login to BigFix window opens.

____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.



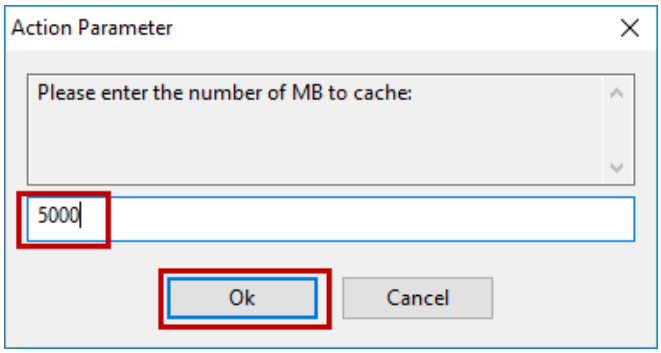
The content list is filtered to shown only those items containing the string **cache**.

____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.



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

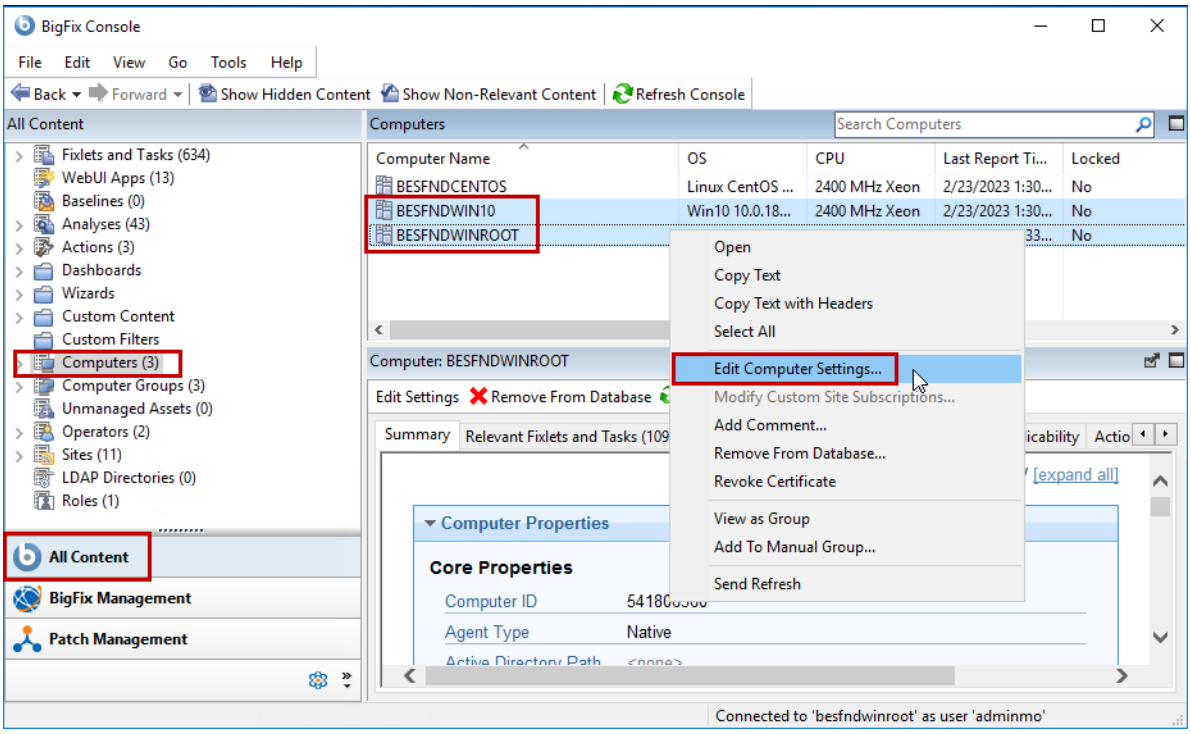
In this exercise, you set various client settings on the Windows endpoints to enable superseded patch evaluation and improve Patch Management performance by increasing the various endpoint cache sizes.

____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.

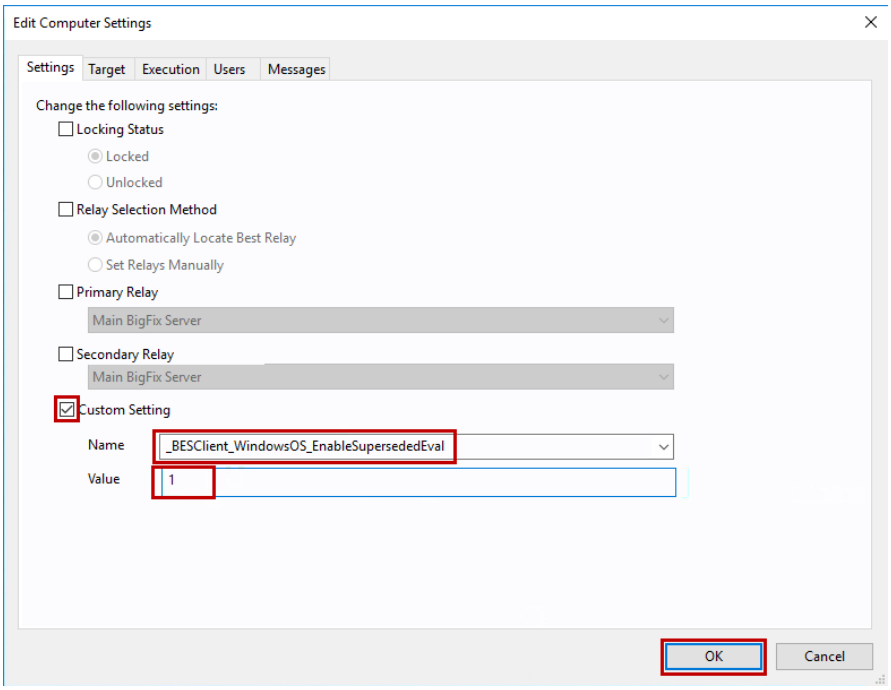
____4) While pressing the **CRTL-key**, select the **BESFNDWIN10** and **BESFNDWINROOT** computers from the list. **Right-click** and select **Edit Computer Settings** from the context menu.



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**



____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**.

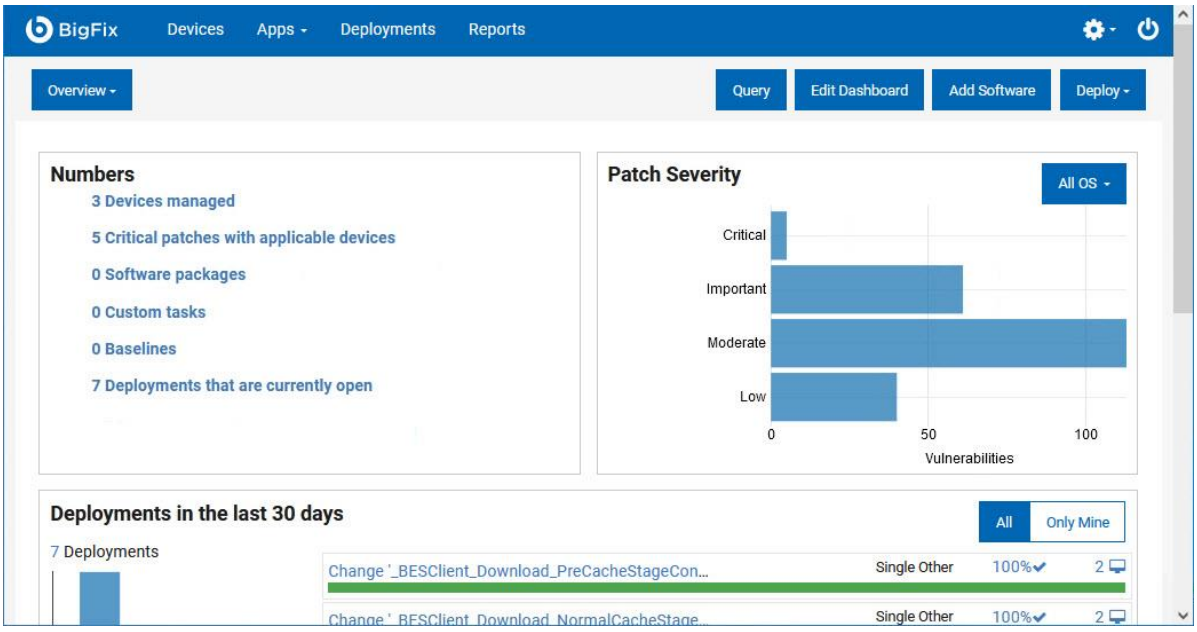
The Login splash screen for the BigFix WebUI opens.

____4) Enter the login credentials as follows, then click **Log in**:

Username: **adminmo**

Password: **B1gfixrocks**

The WebUI Overview page opens.



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.

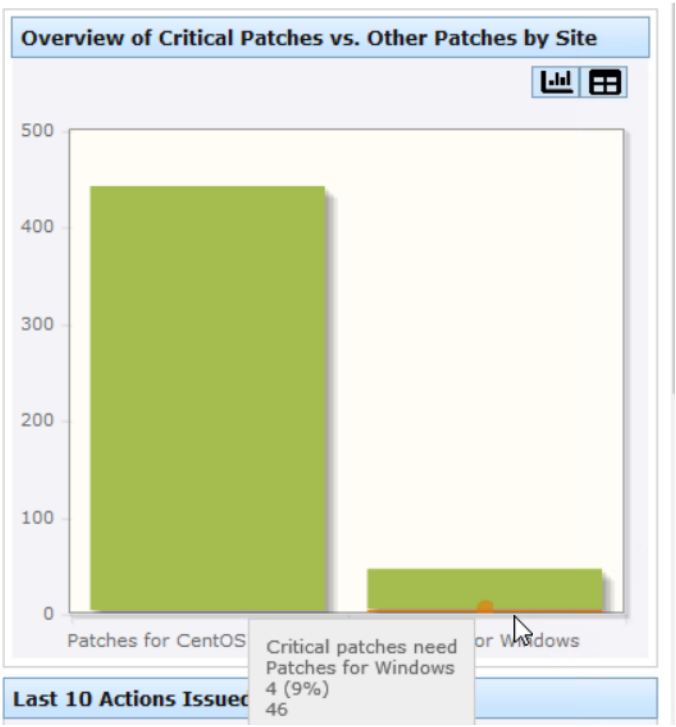
____1) Return to the **BigFix Console** on the **BESFNDWINROOT** virtual machine. Verify that you are logged in as **adminmo**.

____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.

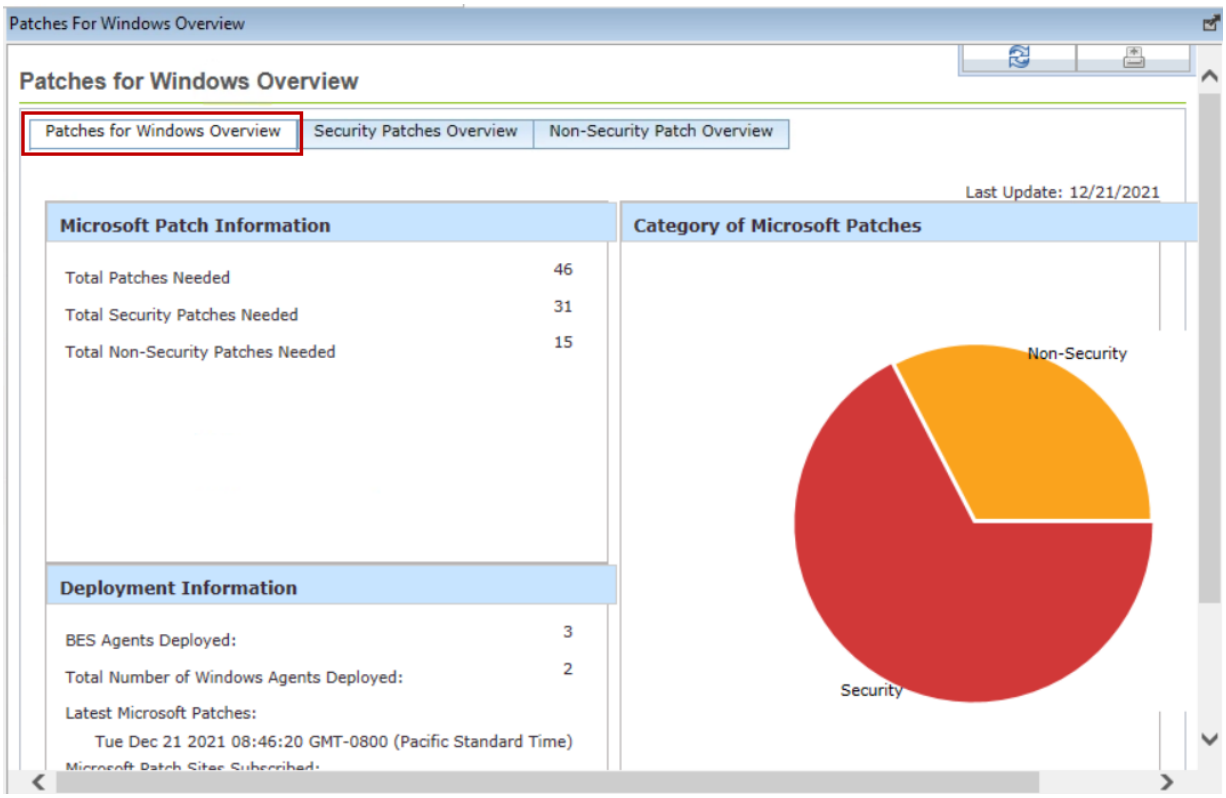
____8) Review the list of vendors and the relevant Fixlet counts associated with each one.

____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.



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.

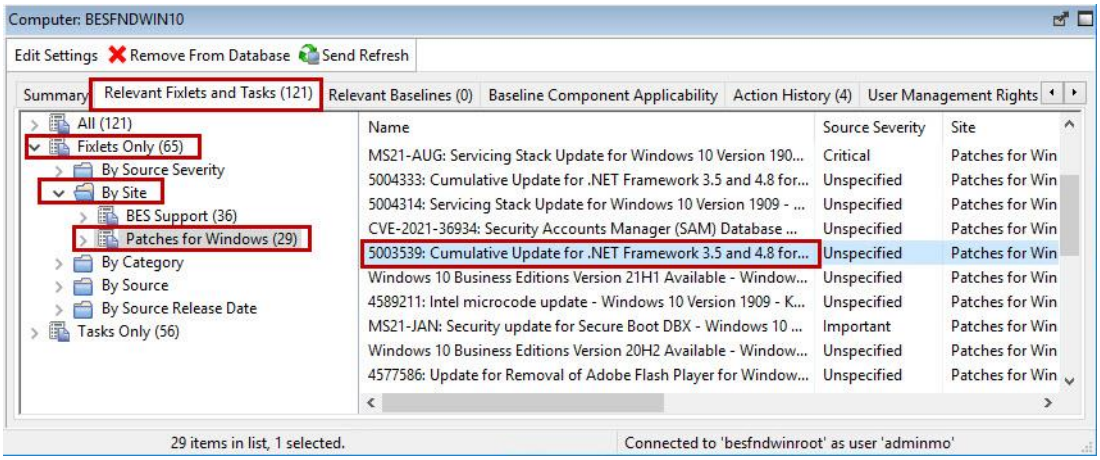
____2) Select the **Patch Management** domain in the lower-left portion of the Console. The navigation pane updates to show only the content that is associated with Patch Management.

____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.

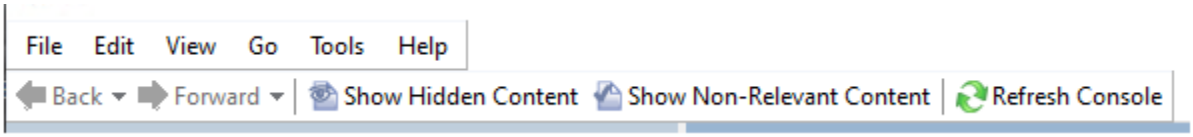


____7) Verify that the **Show Non-Relevant Content** button at the top of the BigFix Console is disabled.

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

Disabled

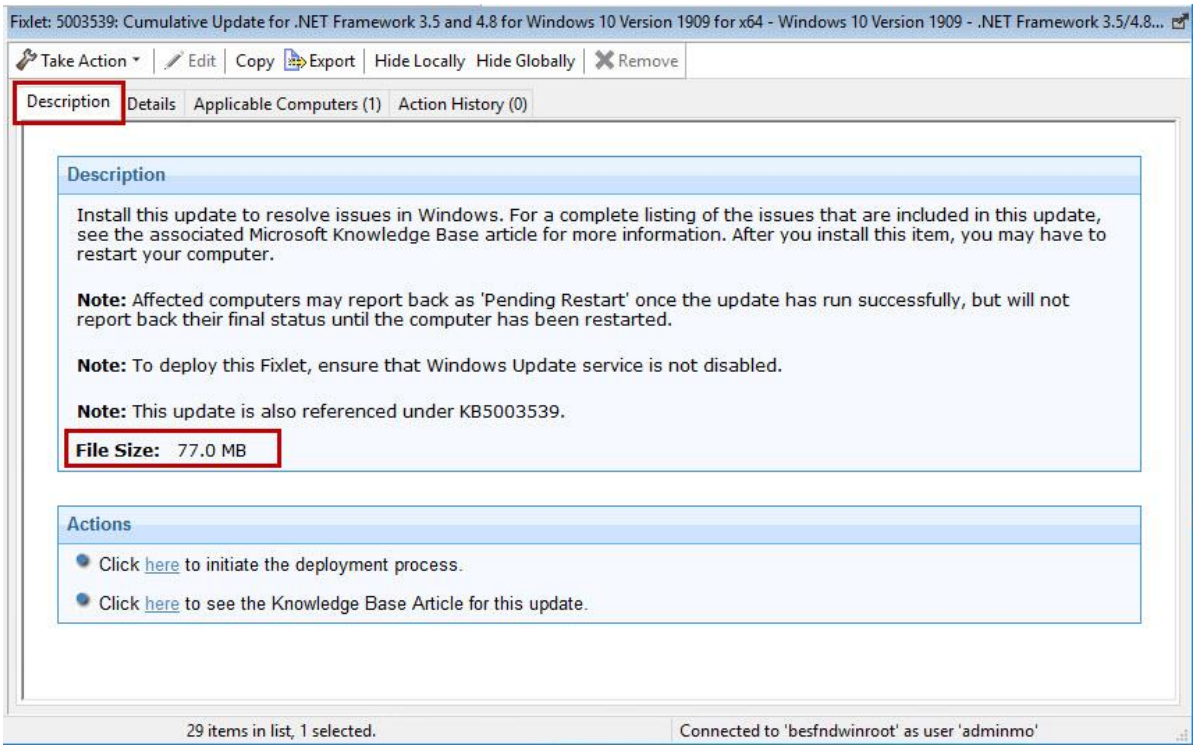


____8) Locate a **Security Update** or **Security Advisory** patch and **double-click** the patch name. The details for the selected patch open in the Console.

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.



____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.

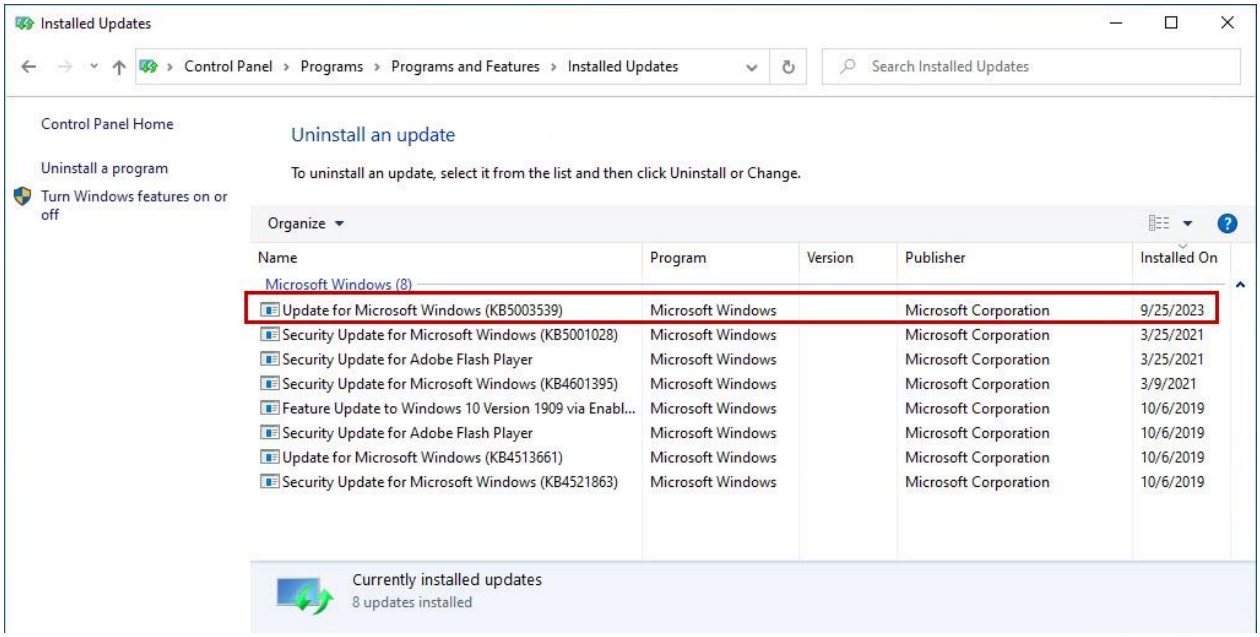
____15) Switch to the **BESFNDWIN10** virtual machine. If you are logged out, log in using **tecuser** with a password of **bigfixrocks**.

____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.



____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

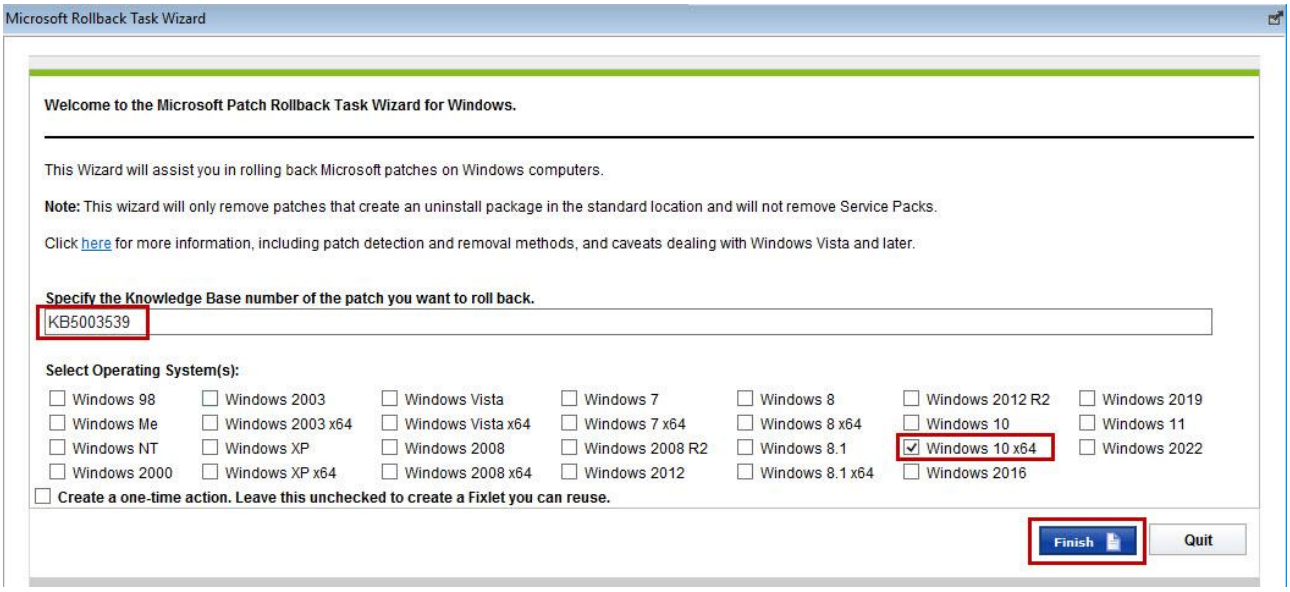
In this exercise, you use the Microsoft Rollback Task wizard to create a Task to remove the patch that you applied in the previous exercise.

____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.

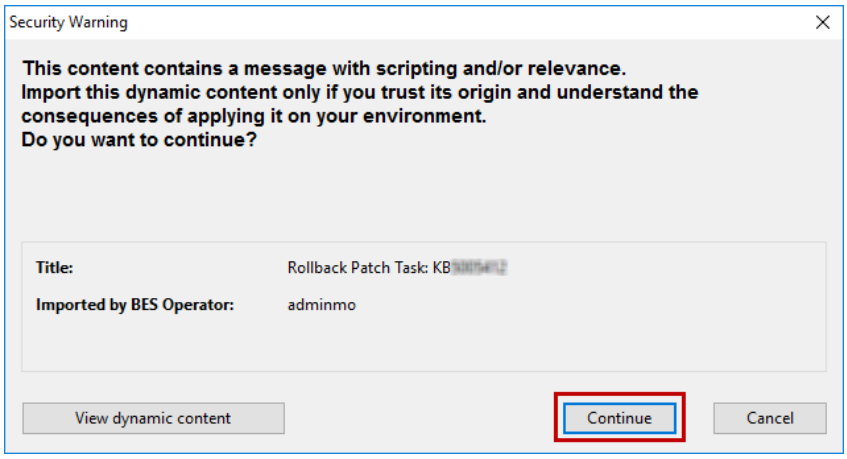
____3) Enter the **Knowledge Base** number of the patch that you applied in the previous exercise and select **Windows 10 x64** for the applicable operating system.

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.



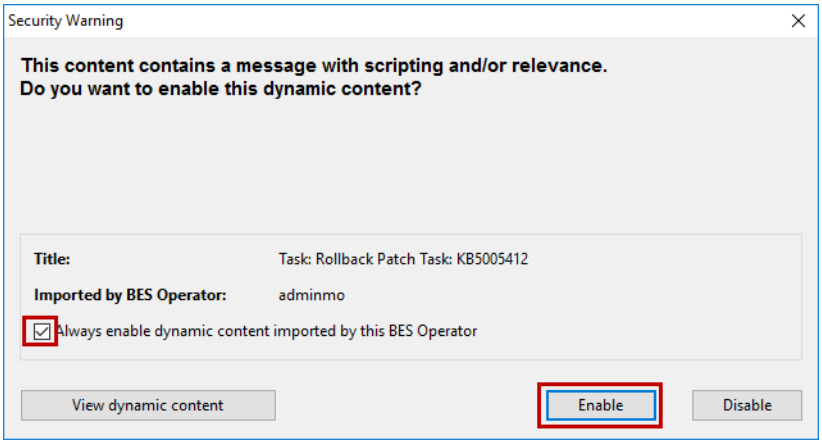
____4) Click **Finish**. The Create Task window is displayed.

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



____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**.

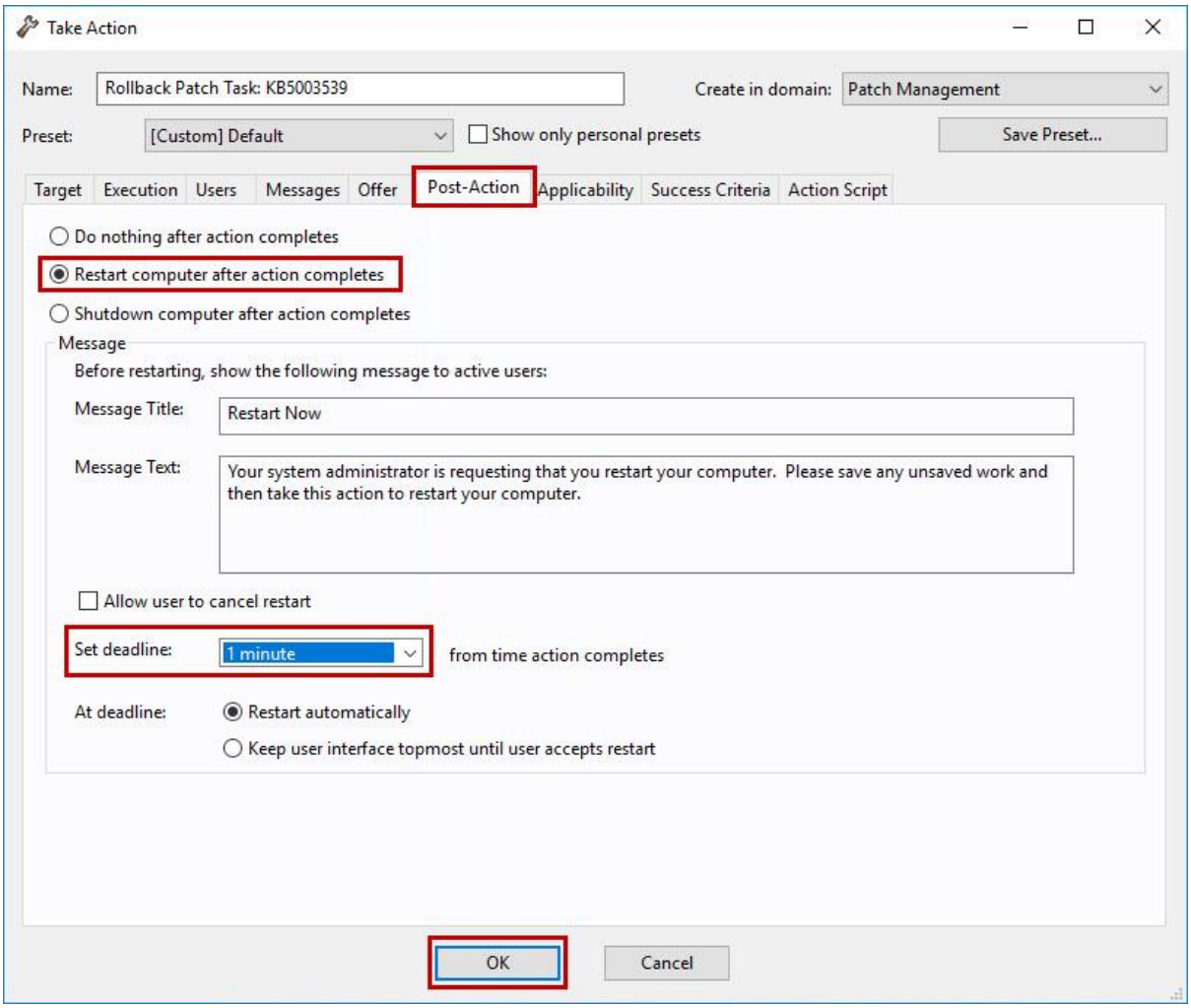


____6) Click the **Applicable Computers** tab and wait until **BESNFDWIN10** becomes relevant before continuing.

____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.



____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.

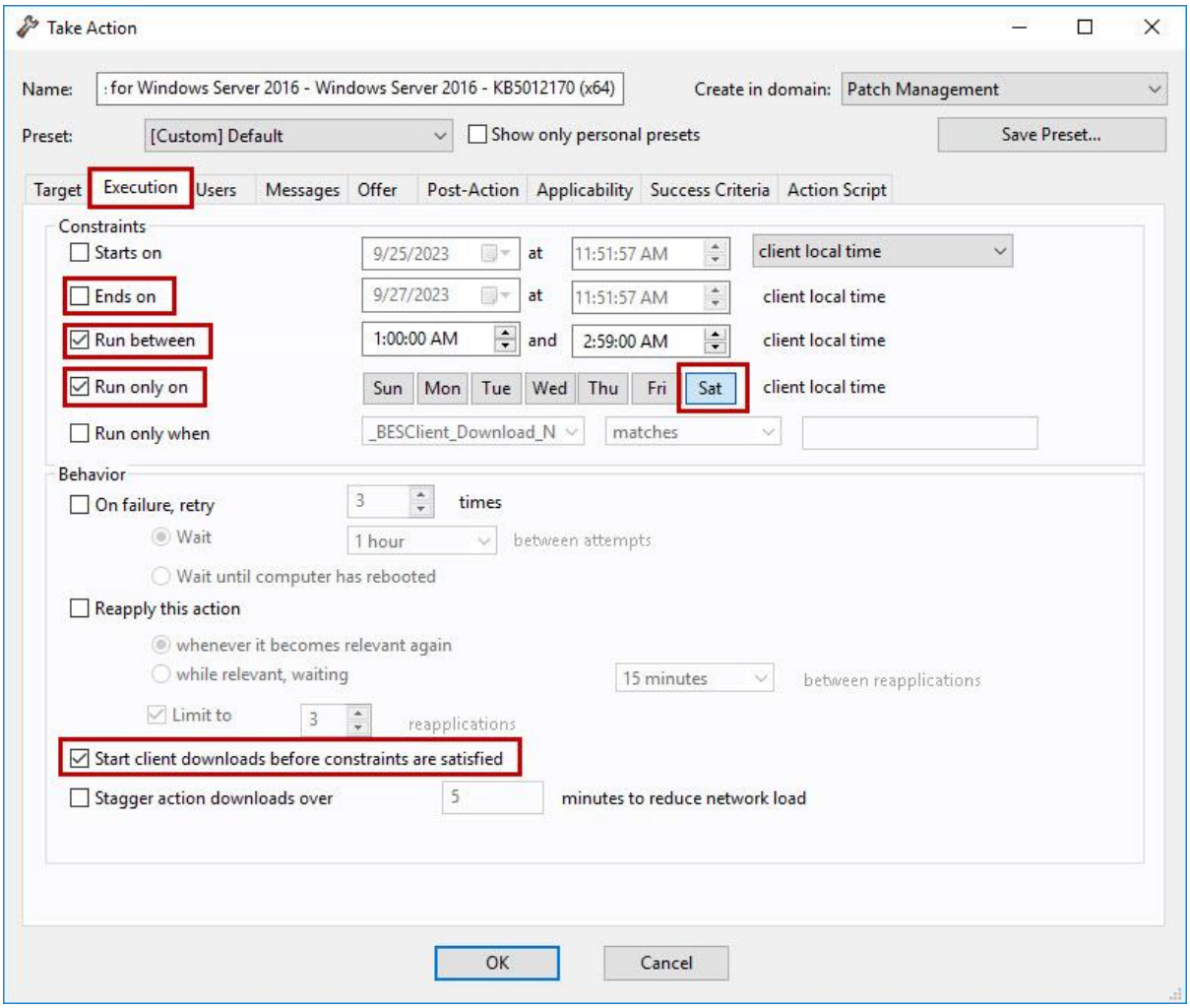
____4) Select the **Execution** tab and set the execution parameters as follows:

___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.

___d) Select the **Start client downloads before constraints are satisfied** option in the **Behavior** section.



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.

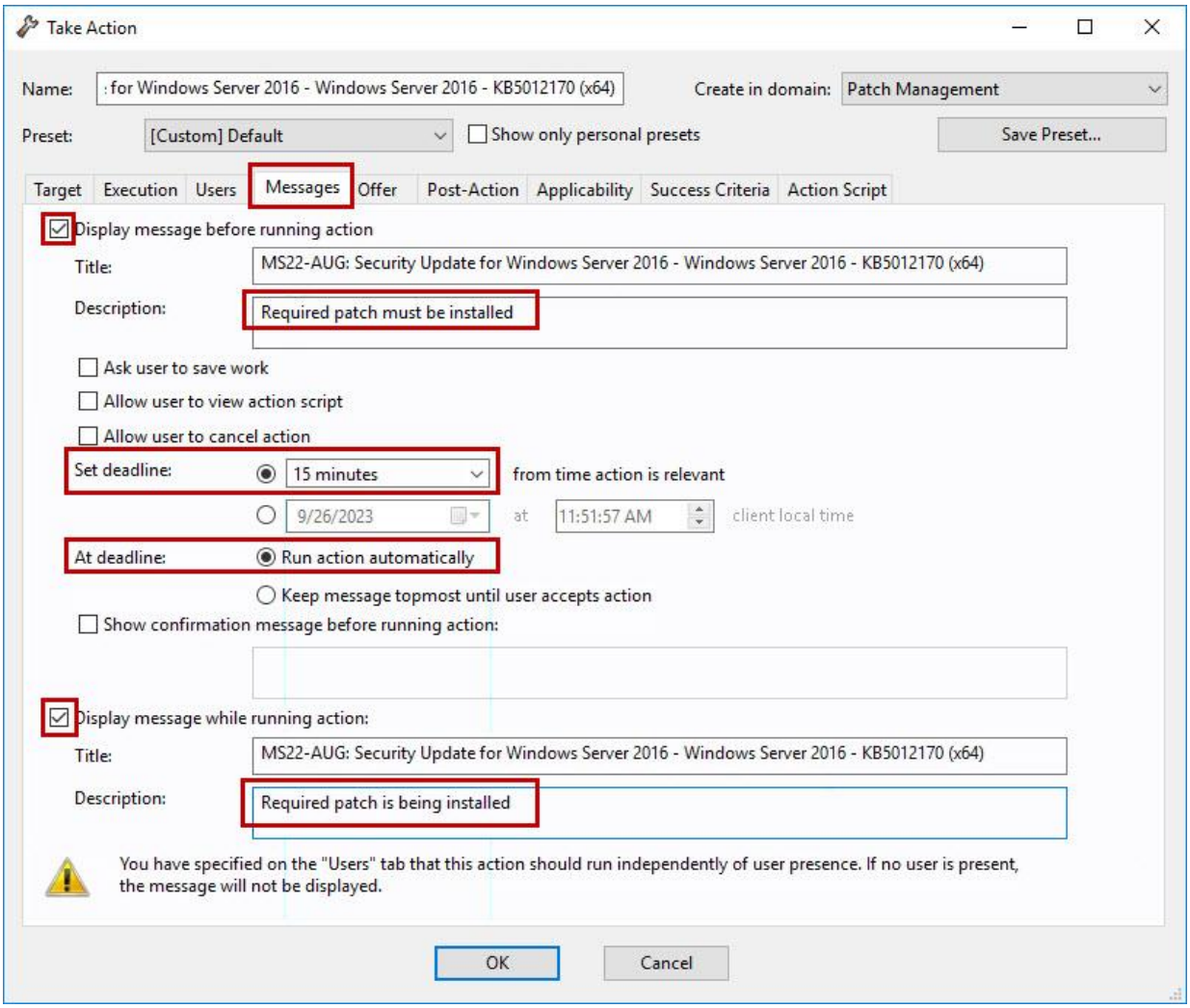
___b) Enter **Required patch must be installed** in the **Description** field

___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.

___f) Enter **Required patch is being installed** in the **Description** field



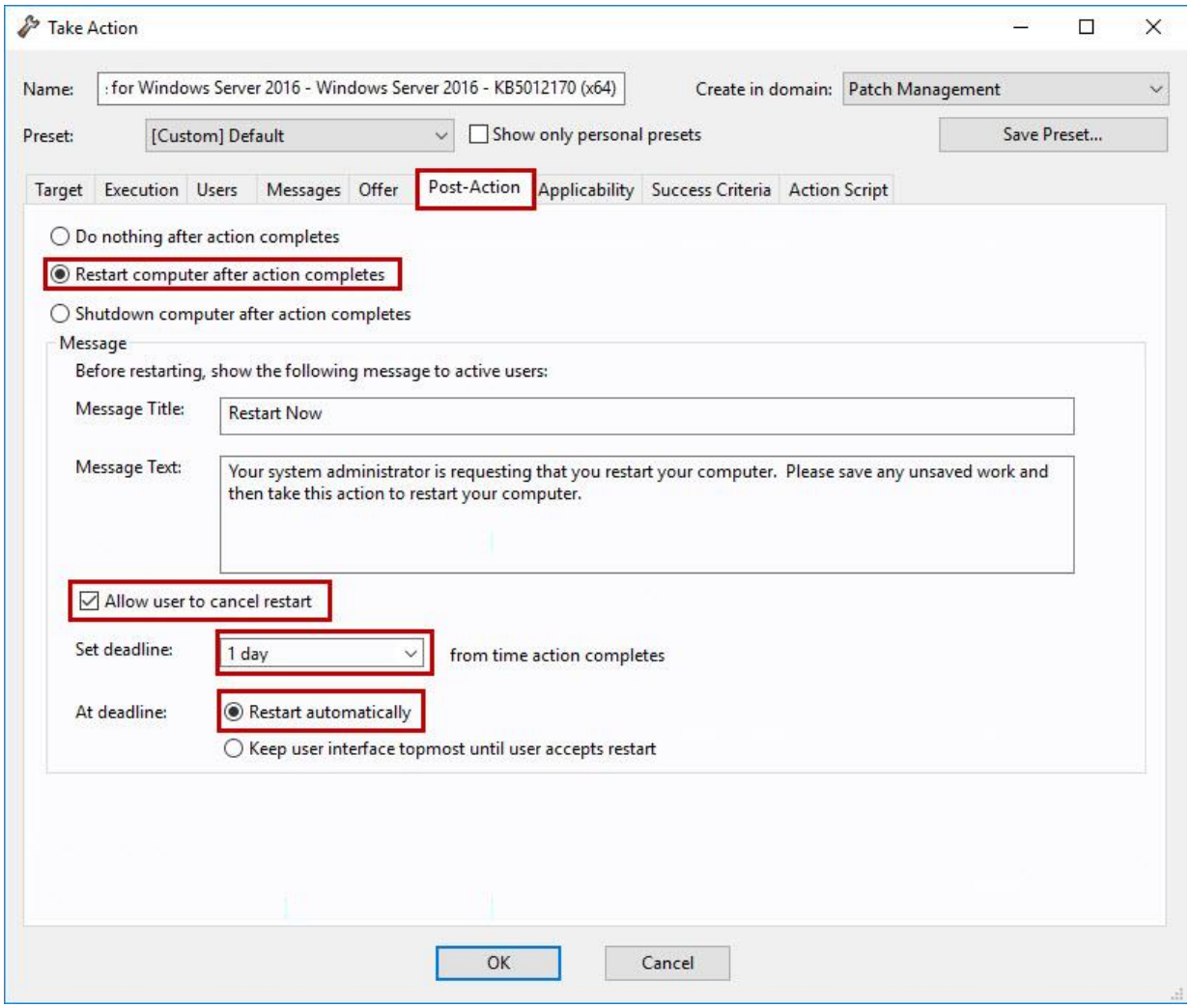
____7) Click the **Post Action** tab. Define the Post Action settings as follows:

___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.

___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.

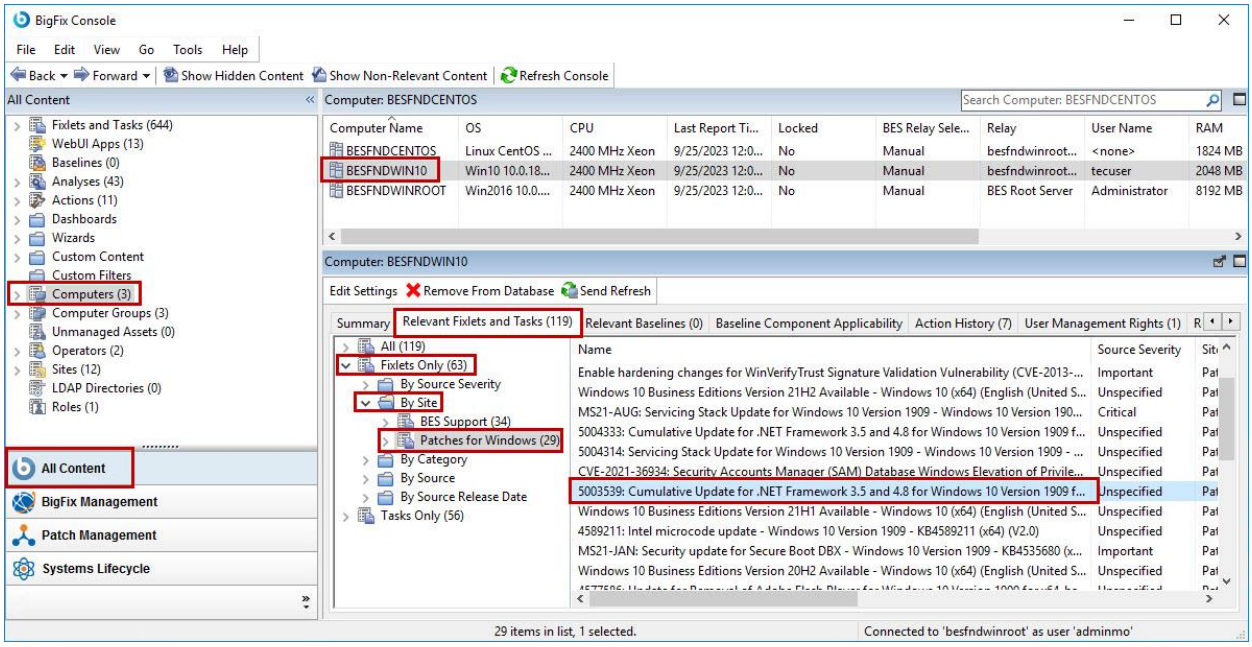
____11) Select **BESFNDWIN10** in the **list area**. The details for the selected computer are shown in the work area below.

____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.



____15) Click **Take Action** and select **Click here to initiate the deployment process.** The Take Action window opens.

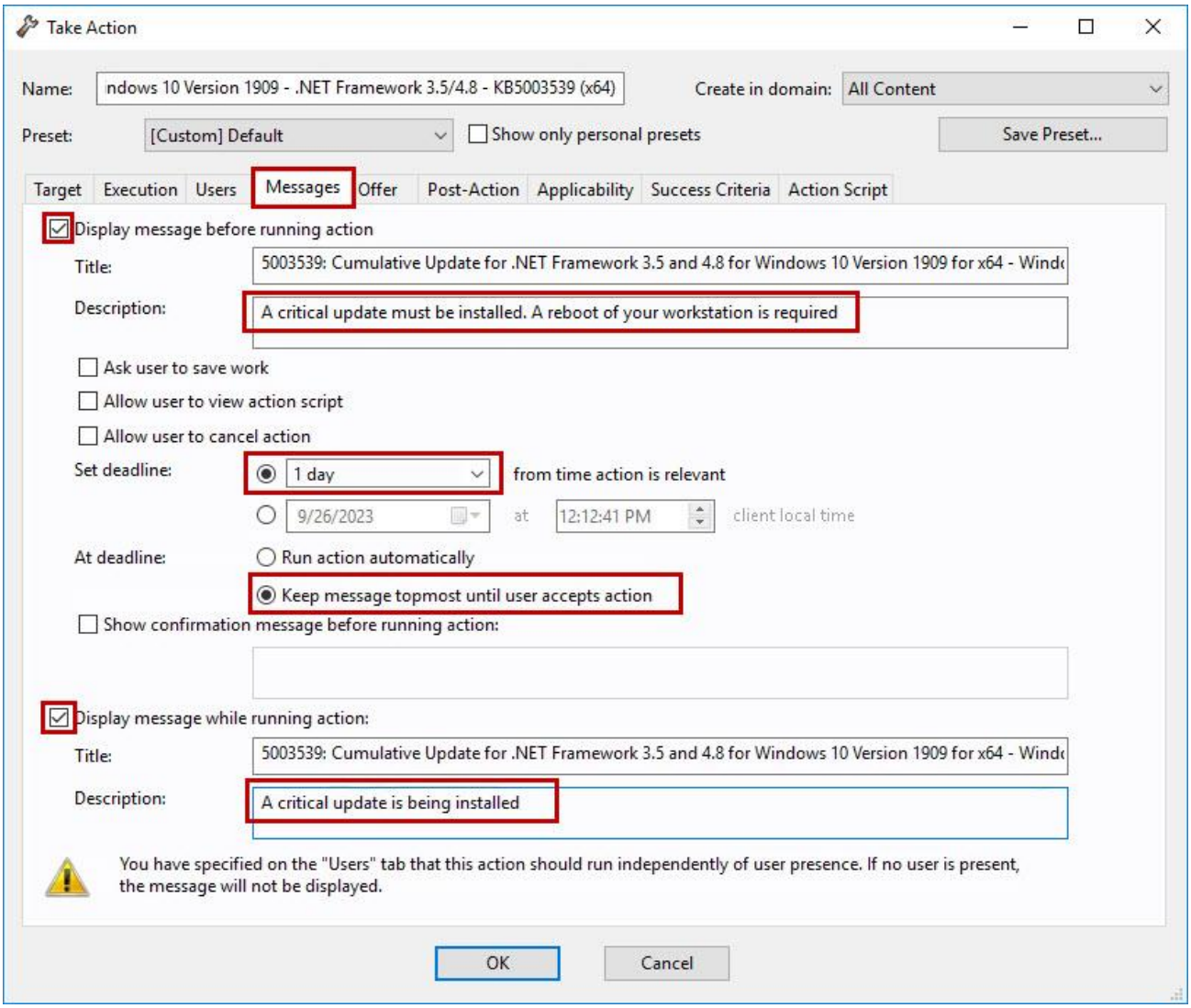
____16) Click the **Execution** tab and verify that the **Ends on** option is set for two days from the current date (default setting).

____17) Click the **Messages** tab. Perform the following steps to set the Message settings:

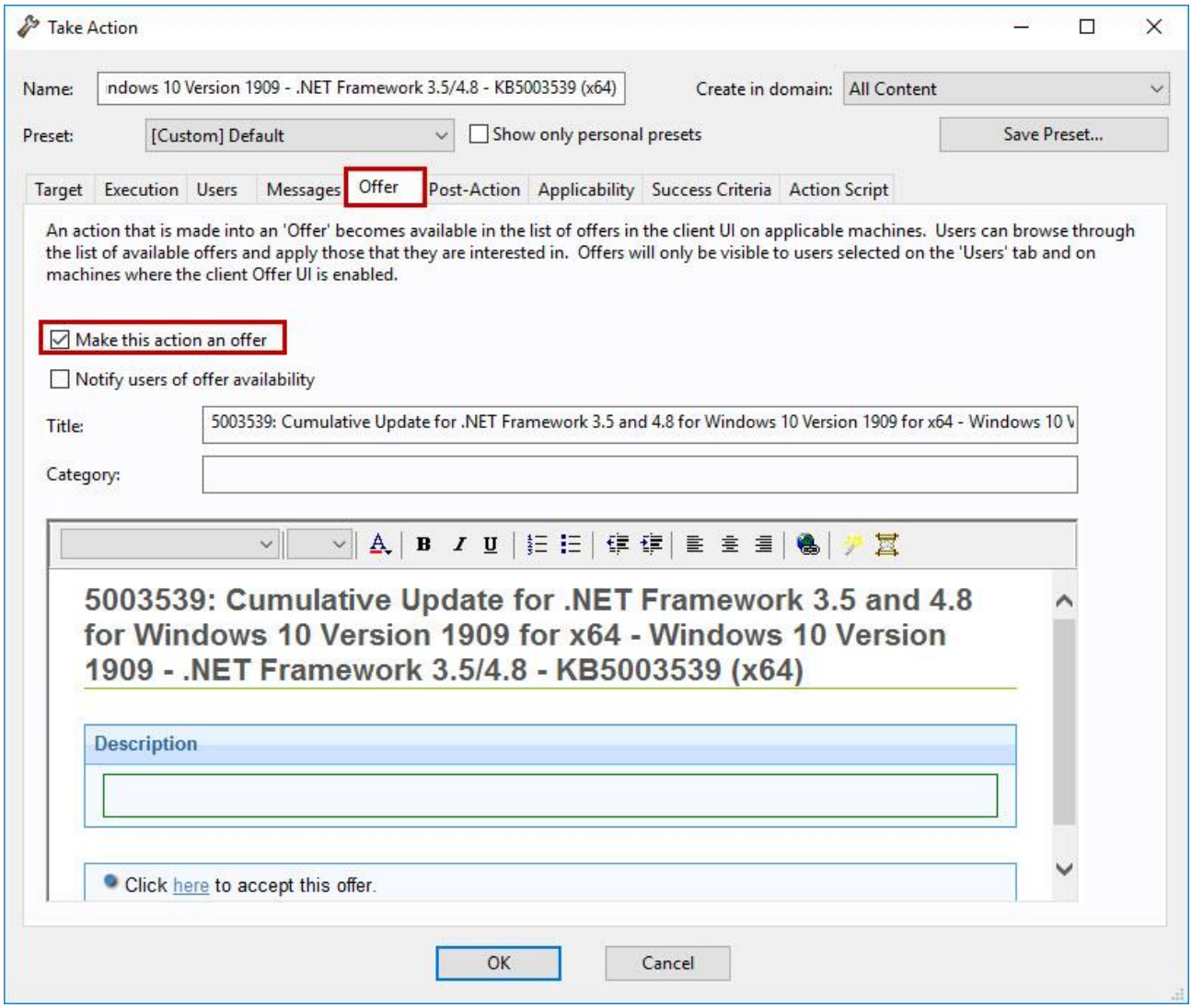
___a) Select **Display message before running action** and enter **A critical update must be installed. A reboot of your workstation is required** in the **Description** field.

___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.


Take Action
Name:
ndows 10 Version 1909 - .NET Framework 3.5/4.8 - KB5003539 (x64)
Create in domain:
All Content
Preset:
[Custom] Default
Show only personal presets
Save Preset...
Target
Execution
Users
Messages
Offer
Post-Action
Applicability
Success Criteria
Action Script
Display message before running action
Title:
5003539: Cumulative Update for .NET Framework 3.5 and 4.8 for Windows 10 Version 1909 for x64 - Windo
Description:
A critical update must be installed. A reboot of your workstation is required
Ask user to save work
Allow user to view action script
Allow user to cancel action
Set deadline:
1 day
from time action is relevant
9/26/2023
at
12:12:41 PM
client local time
At deadline:
Run action automatically
Keep message topmost until user accepts action
Show confirmation message before running action:
Display message while running action:
Title:
5003539: Cumulative Update for .NET Framework 3.5 and 4.8 for Windows 10 Version 1909 for x64 - Windo
Description:
A critical update is being installed
You have specified on the "Users" tab that this action should run independently of user presence. If no user is present, the message will not be displayed.
OK
Cancel

____18) Click the **Offer** tab. Select **Make this action an offer**.



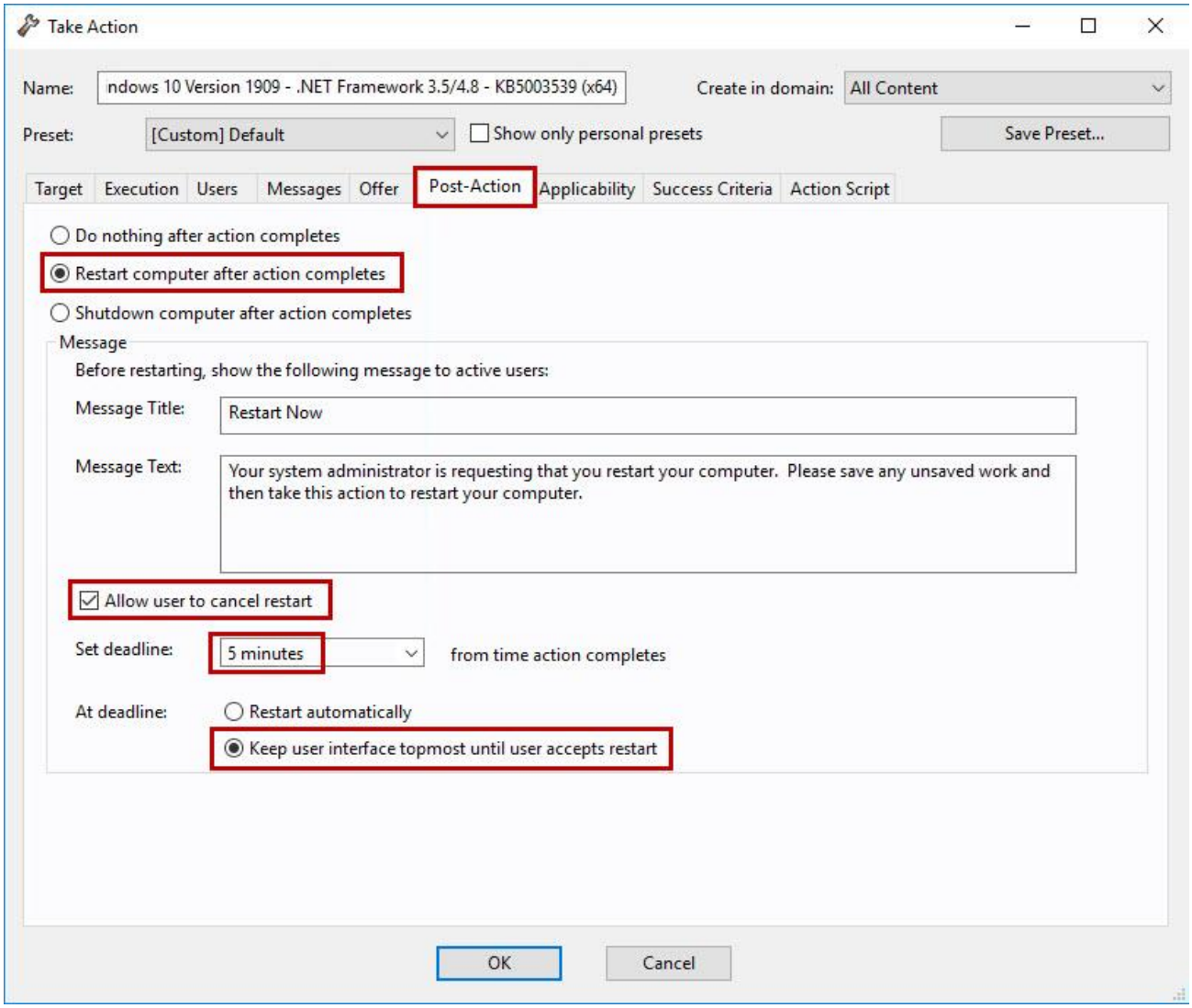
____19) Select the **Post Action** tab. Perform the following steps to set the Post Action settings:

___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.



____20) Review the remaining tabs, but do not change anything on them.

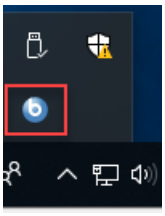
____21) Click the **Target** tab and select **BESFNDWIN10** from the list of available targets.

____22) Click **OK** to initiate the action.

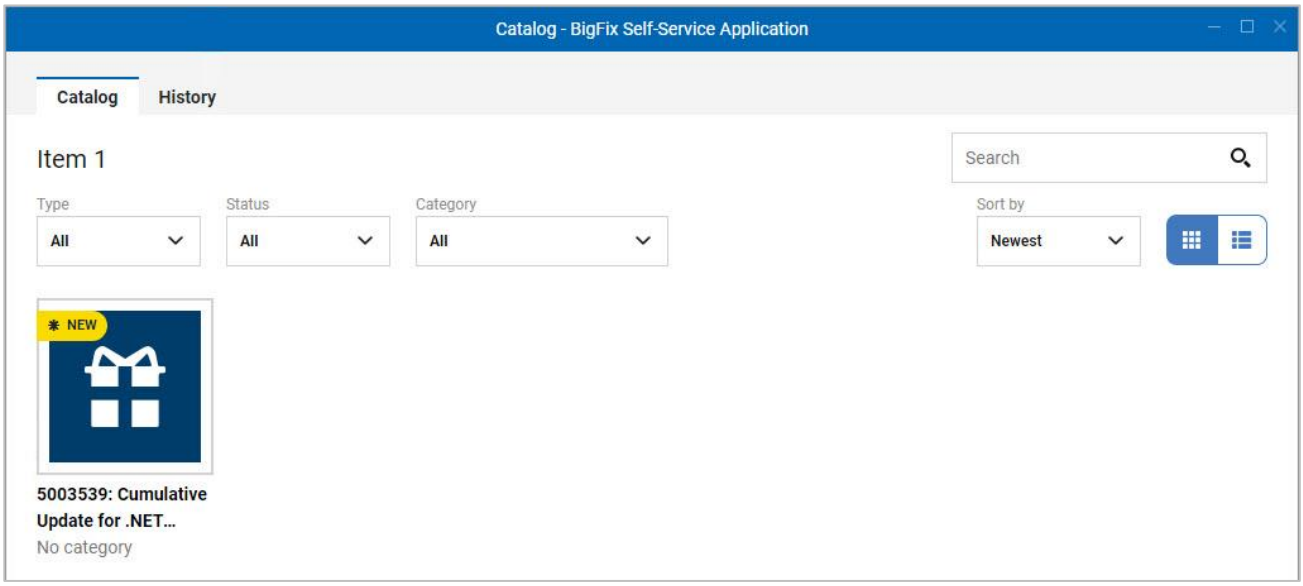
____23) Monitor the status of the action. Wait until the status is **Pending Offer Acceptance** before continuing.

____24) Switch to the **BESFNDWIN10** virtual machine. If you are logged off, log on as **tecuser** with a password of **bigfixrocks**.

____25) Click the BigFix Self Service App interface icon in the Windows taskbar in the lower-right portion of the desktop

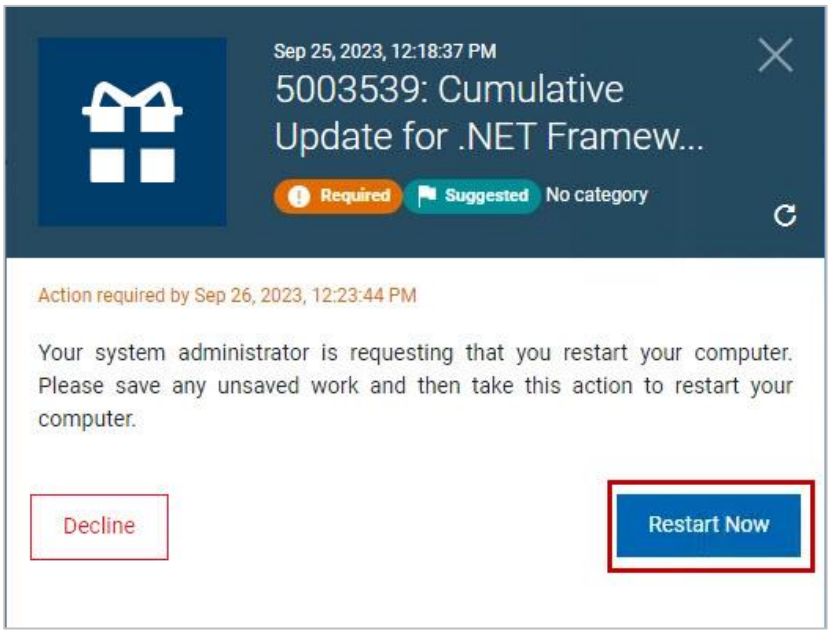


The BigFix Self Service Application window opens.



____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.



____27) Click **Restart Now**. The BESFNDWIN10 virtual machine reboots.

____28) Log in to the **BESFNDWIN10** virtual machine as **tecuser** with a password of **bigfixrocks**.

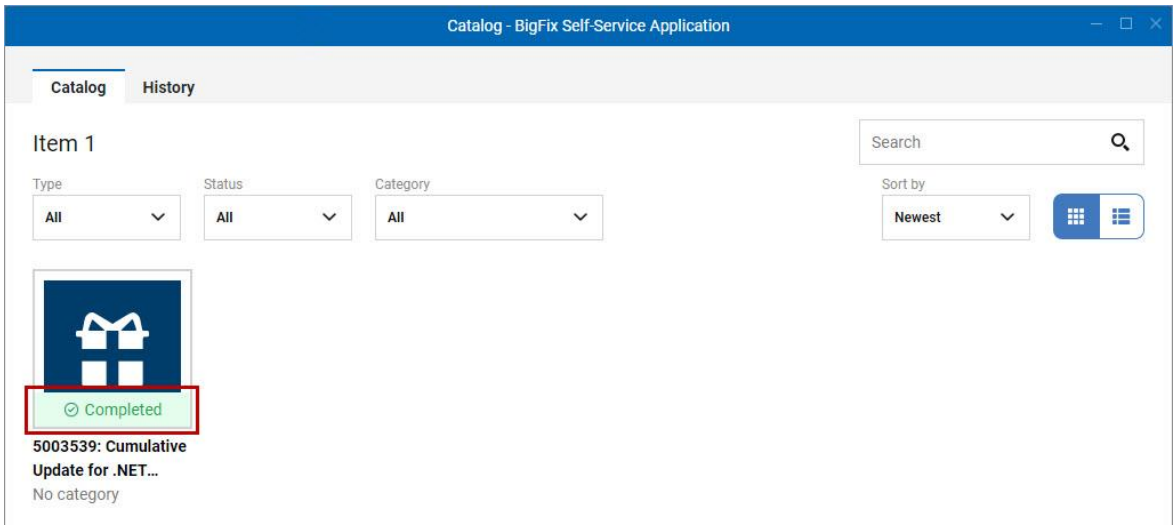
____29) Switch to the **BESFNDWINROOT** virtual machine and return to the console.

____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**.



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.

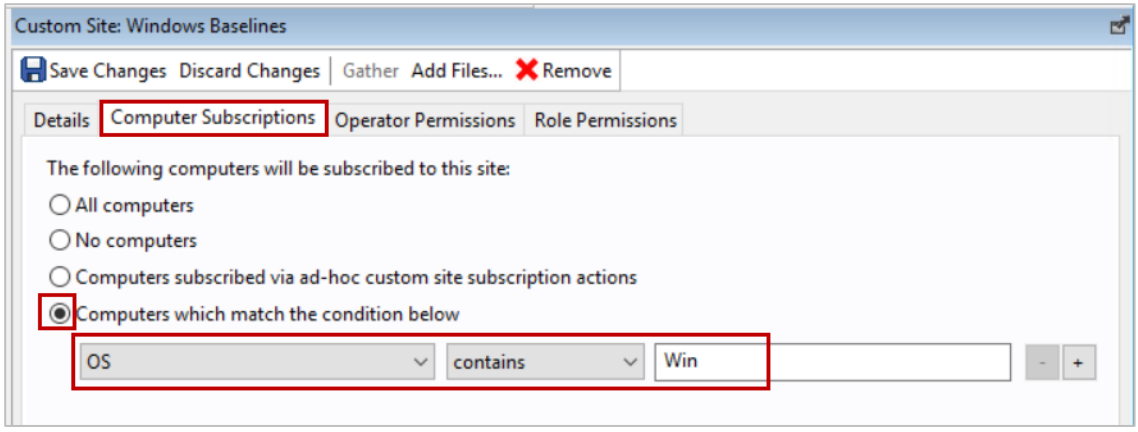
Important: Creating baselines as a master operator can negatively affect system performance because by default they are created in the Master Action Site. Since all computers are automatically subscribed to the Master Action Site it is important to keep it as small as possible. In a production environment, 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.

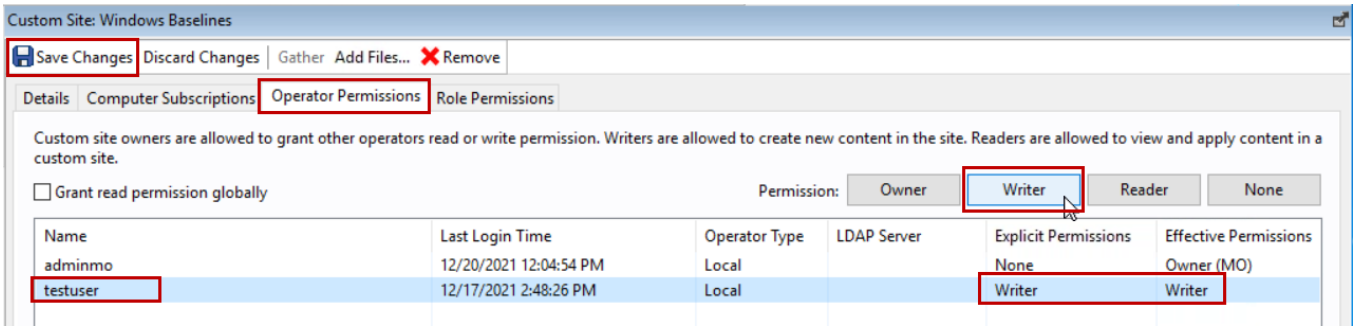
____3) Enter **Windows Baselines** for the name and click **OK**. The Custom Site: Windows Baselines pane is displayed.

____4) Click the **Computer Subscriptions** tab and select the **Computers which match the condition below** option. Set the filters to **OS contains Win**



____5) Select the **Operators Permissions** tab.

____6) Select **testuser** and click **Writer** in the permission section. Click **Save Changes**.



____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.

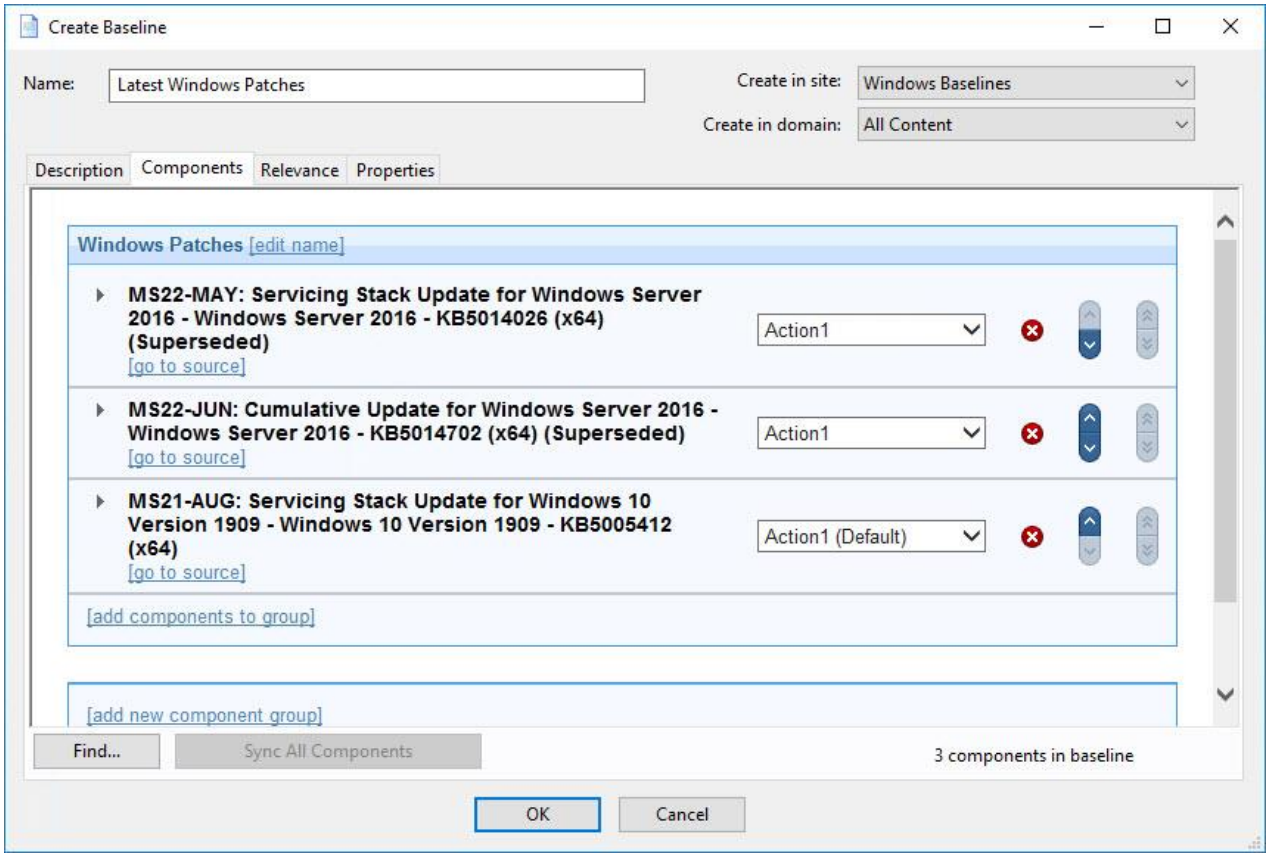
____14) Expand **All Relevant Fixlet Messages > By Source > Microsoft > By Category** nodes on the left side of the **Add Baseline Components** window then select the **Security Update** node. A list of security updates is displayed.

____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.



____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.

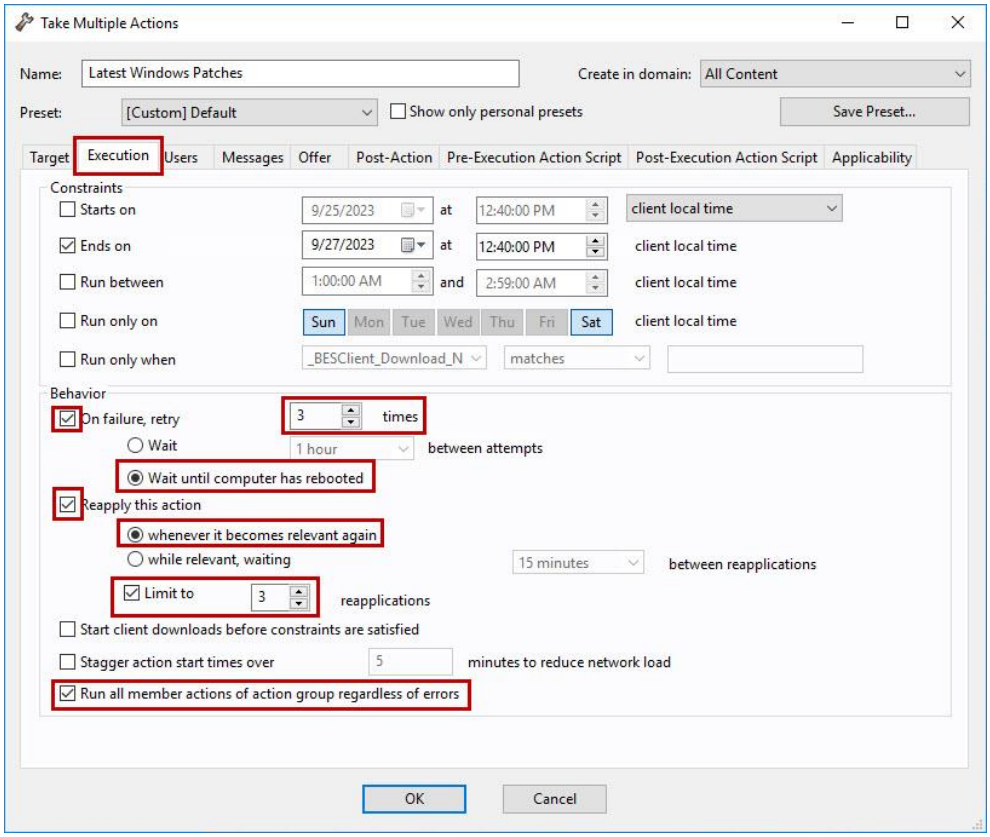
____20) Click the **Applicable Computers** tab. If the **BESFNDWIN10** system is not in the list, wait a few minutes for the Baseline Relevance to evaluate.

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.



____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**.

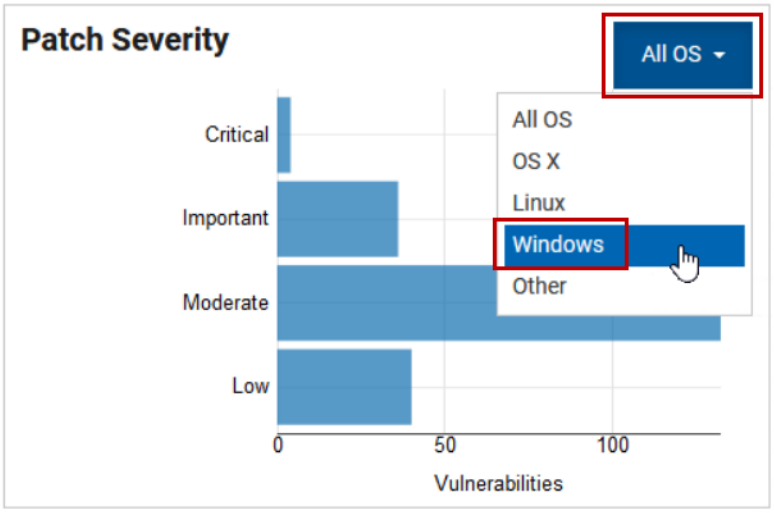
____3) Double-click the **Firefox** icon on the **Windows Desktop** and enter the following URL in the address field:

`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.

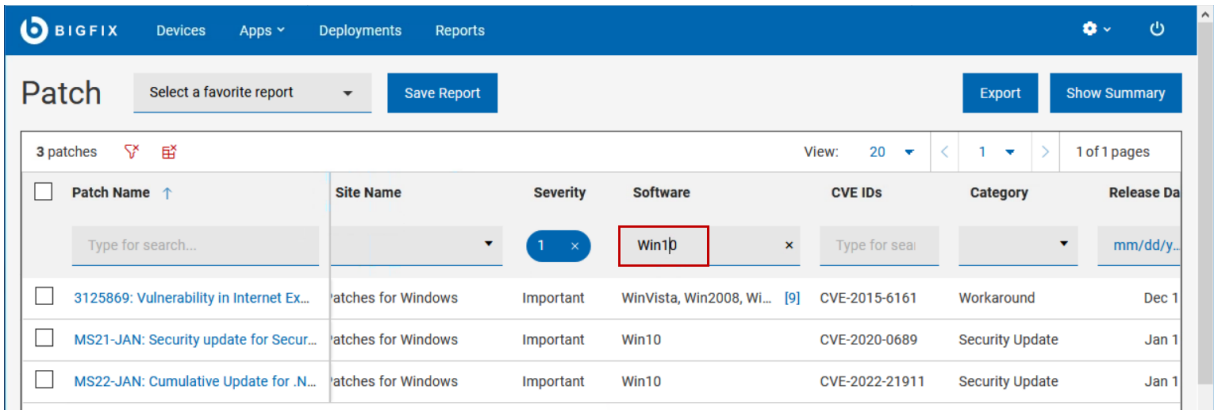
____5) Select **Windows** from the drop-down box in the upper-right portion of the **Patch Severity** widget.



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.

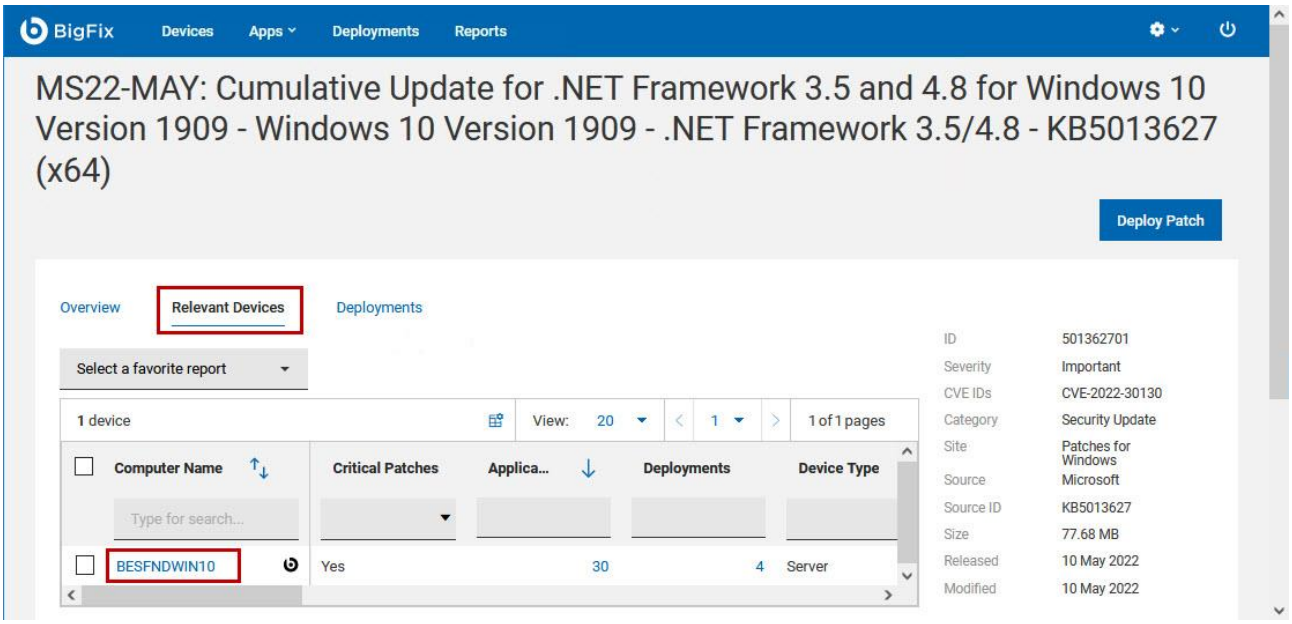
____7) Enter **Win10** in the search field for the **Software** column. The list of Relevant patches is filtered to show only those that are applicable to the Windows 10 endpoints.



____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.



____11) Click **Deploy Patch**. The Deploy Patch page opens.

____12) Click **Next**. The Select Targets tab opens on the Deploy Patch page.

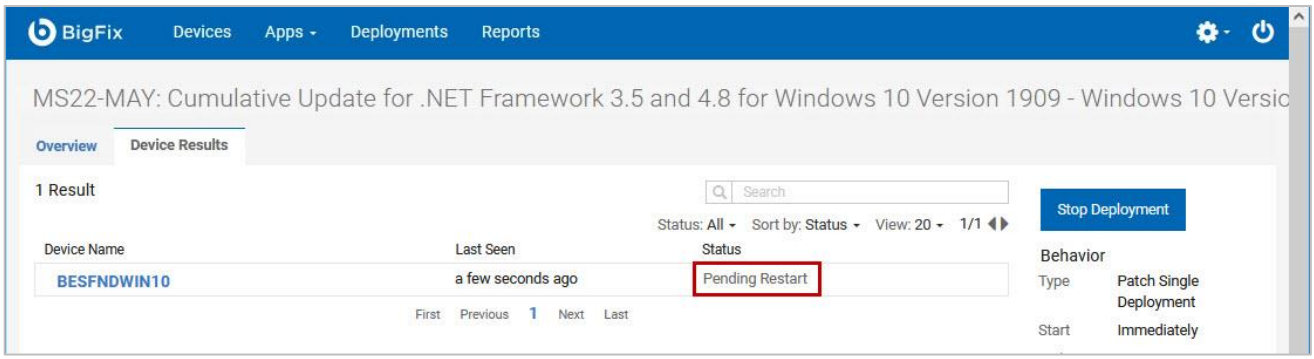
Tip: If a patch contains more than one Action, you must first select desired Action before the **Next** button becomes active allowing you to advance to the Select Targets page.

____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.



____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

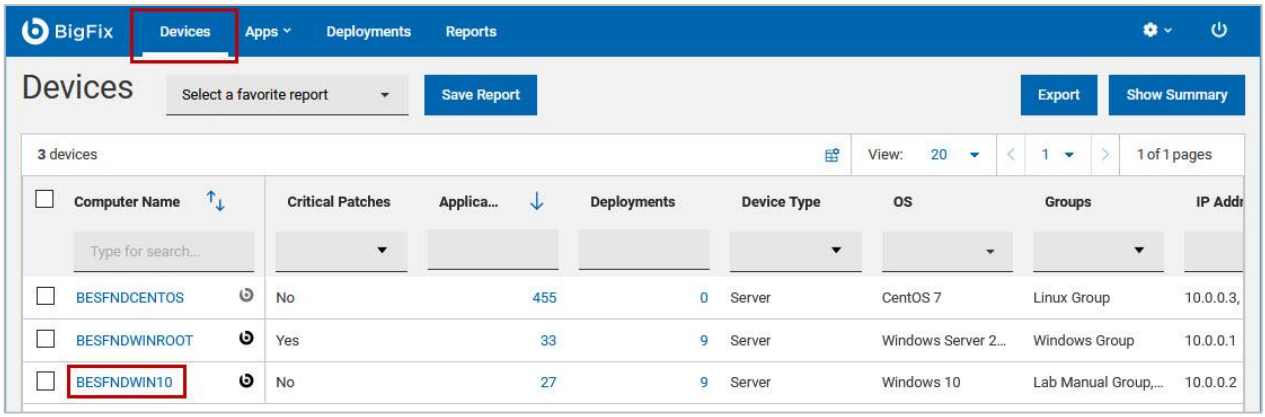
You can make the installation of certain patches optional to end users by configuring and distributing them as offers.

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

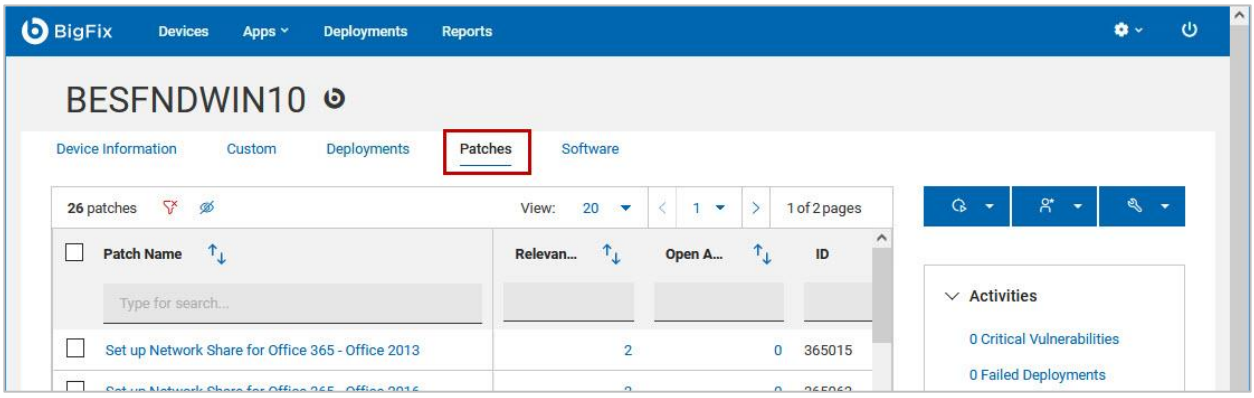
____1) Switch to the **BESFNDWINROOT** virtual machine and return to the WebUI. If the WebUI session has timed out, login as **adminmo** with a password of **B1gfixrocks**.

____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.

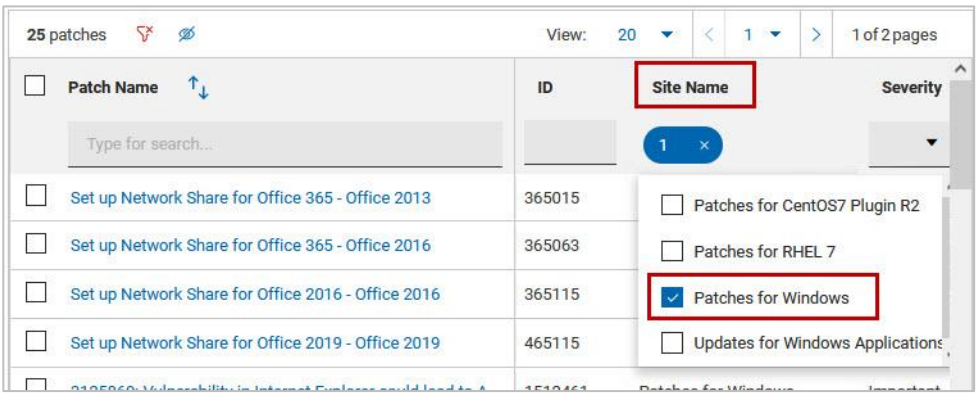


____4) Select the **Patches** tab at the top of the **BESFNDWIN10** Overview page.



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.



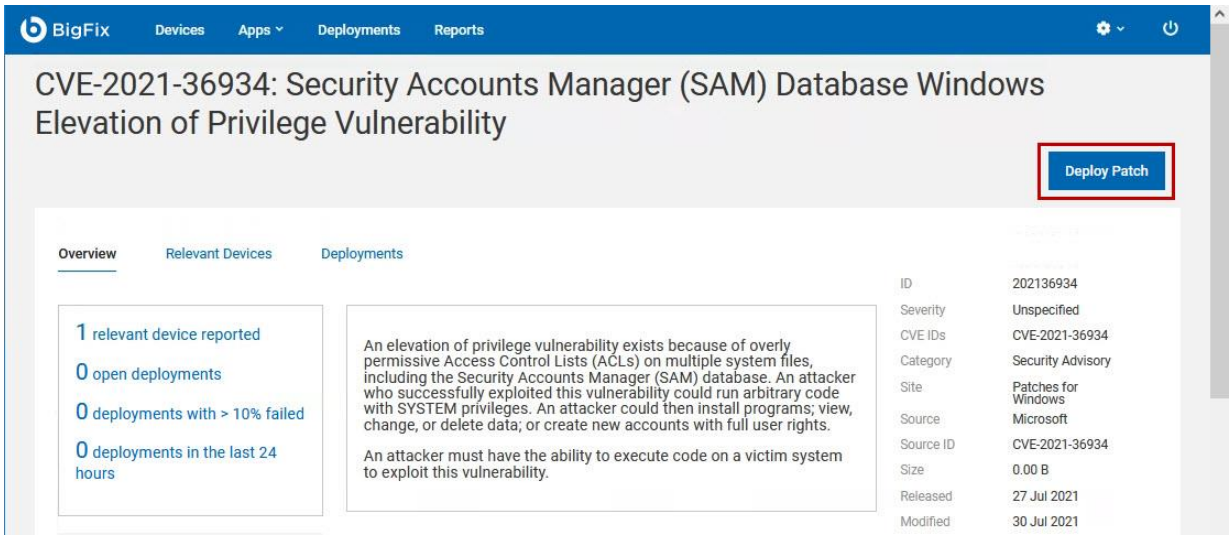
The list of relevant patches is filtered to show only those from the Patches for Windows external site.

____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**.



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.

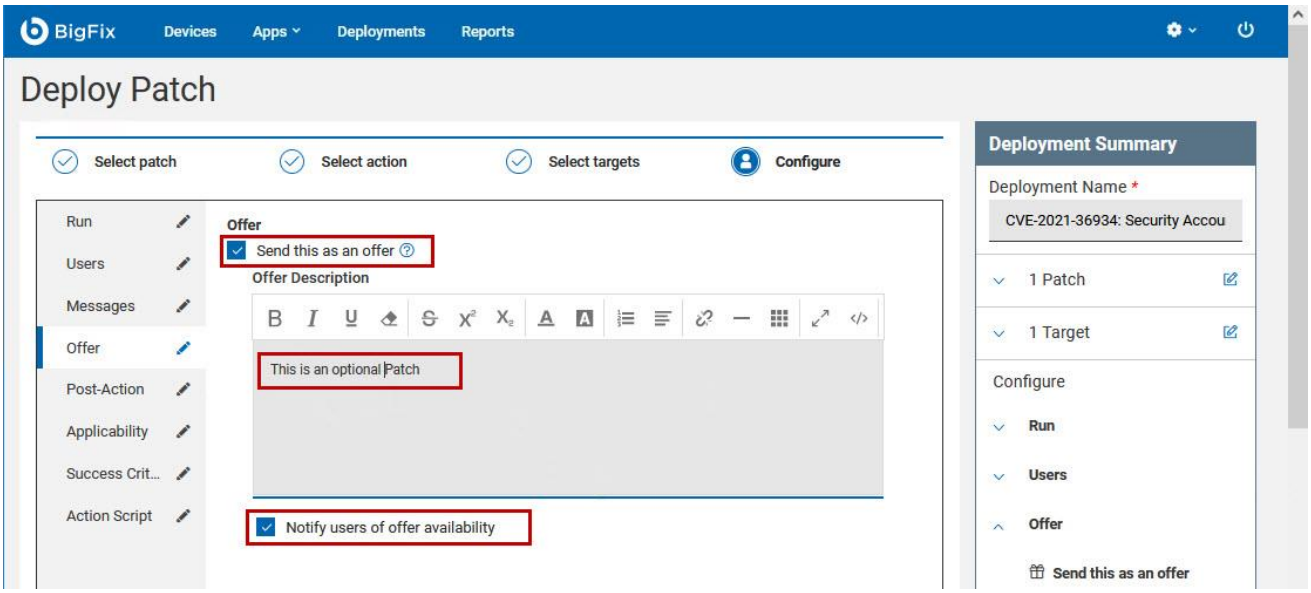
____11) Place a check beside the **BESFNDWIN10** computer is the list of available targets then click **Next**. The Configure tab opens on the Deploy Patch page.

____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.

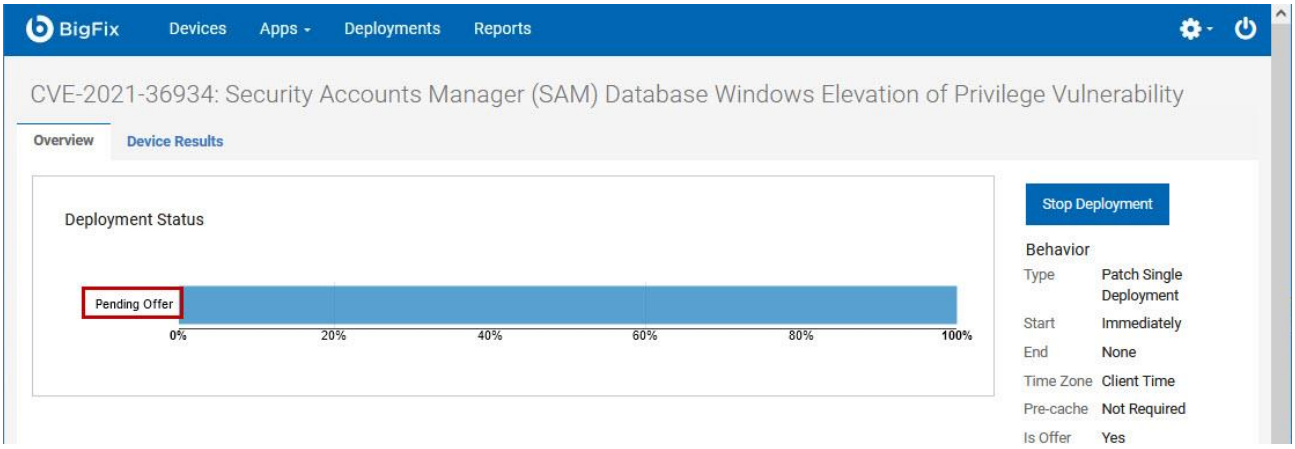
____14) Set the following options on the **Offer** settings page:

- 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.



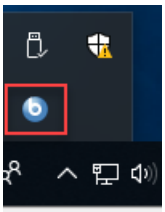
____15) Click **Deploy**. The deployment page opens for the action.

____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.

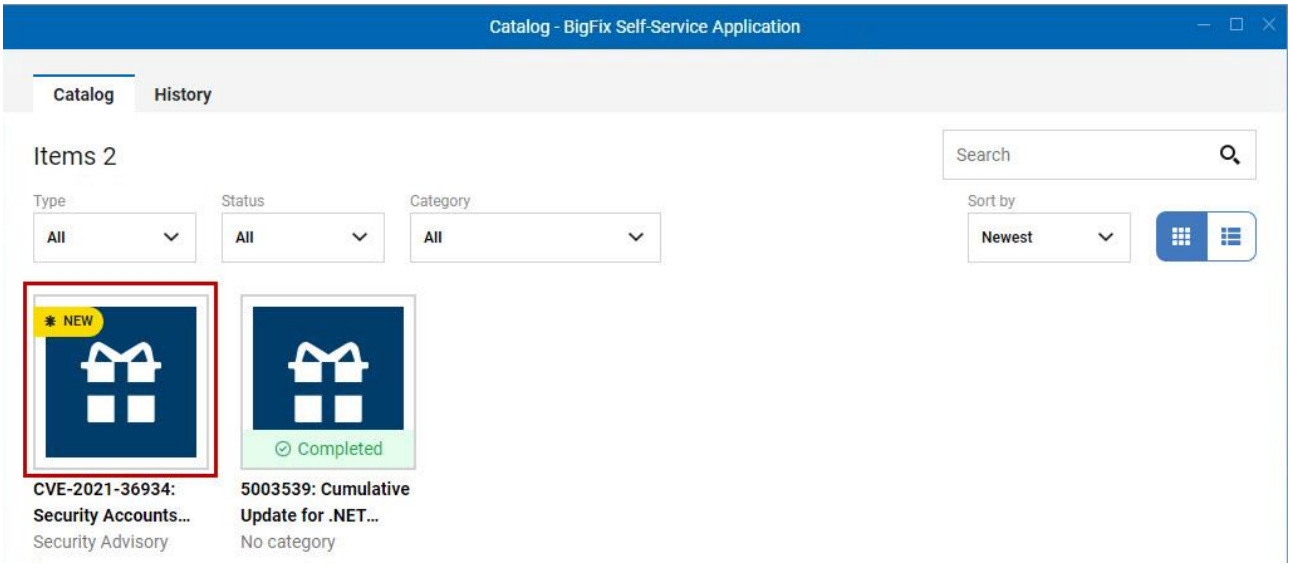


____17) Switch to the **BESFNDWIN10** virtual machine. If you are logged off, log on as **tecuser** with a password of **bigfixrocks**.

____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**.



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.

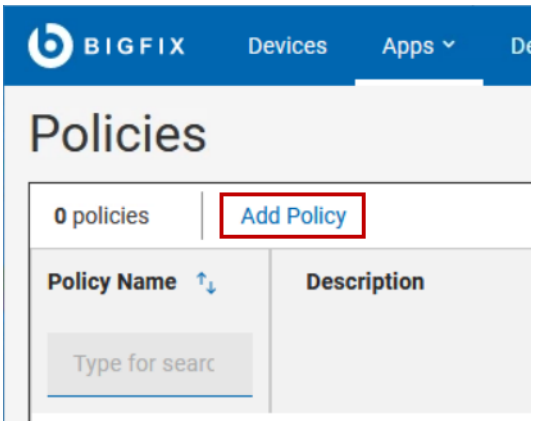
Patch policies are available for Windows, Mac, and Linux operating systems.

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

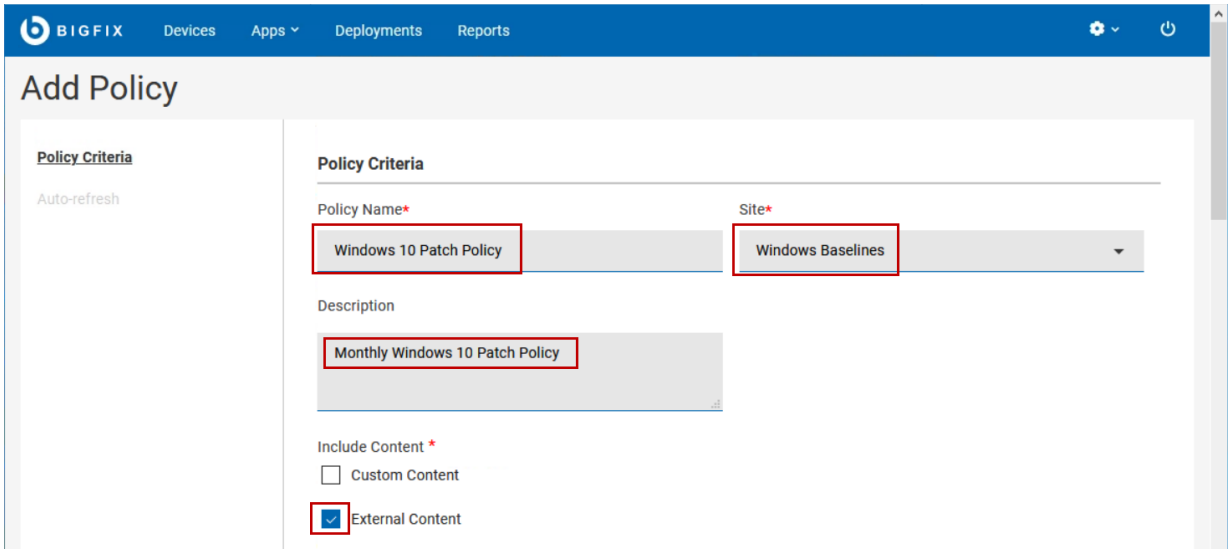


____4) Enter **Windows 10 Patch Policy** in the **Policy Name** field.

____5) Choose **Windows Baselines** from the **Site** drop down box.

____6) Enter **Monthly Windows 10 Patch Policy** in the **Description** field.

____7) Place a check beside the **External Content** option.

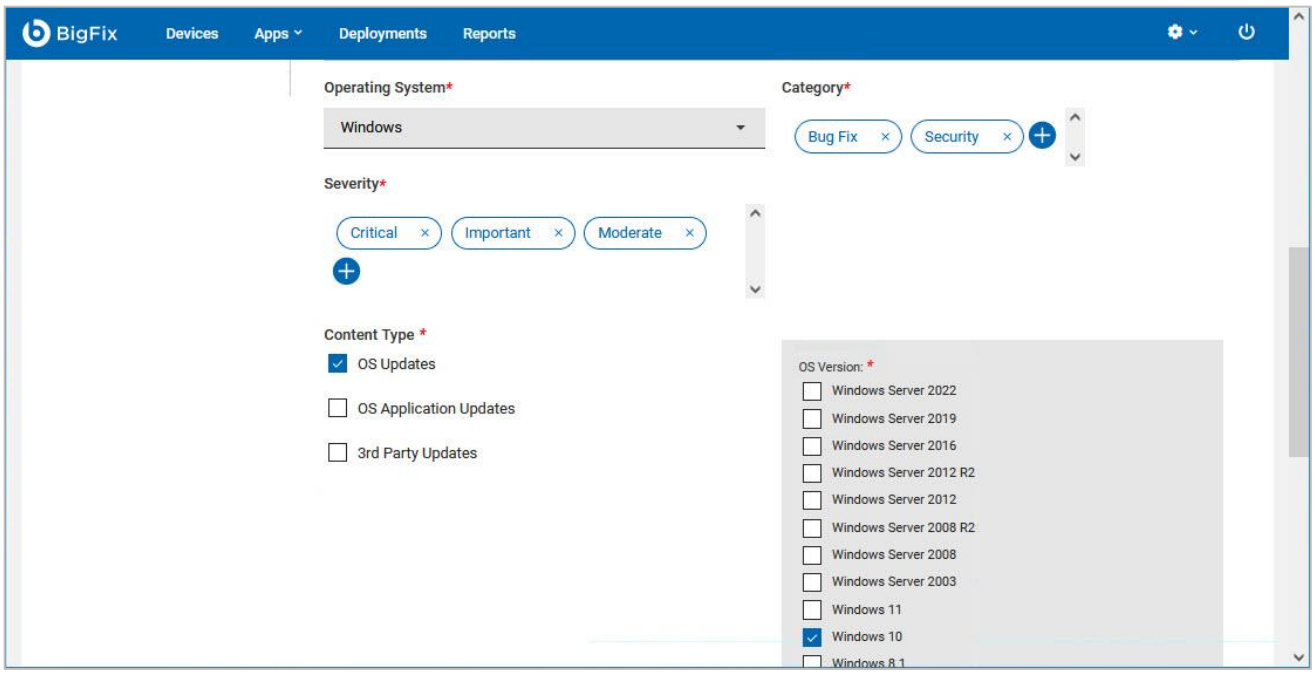


____8) Select **Windows** from the **Operating System** drop-down box.

____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**.

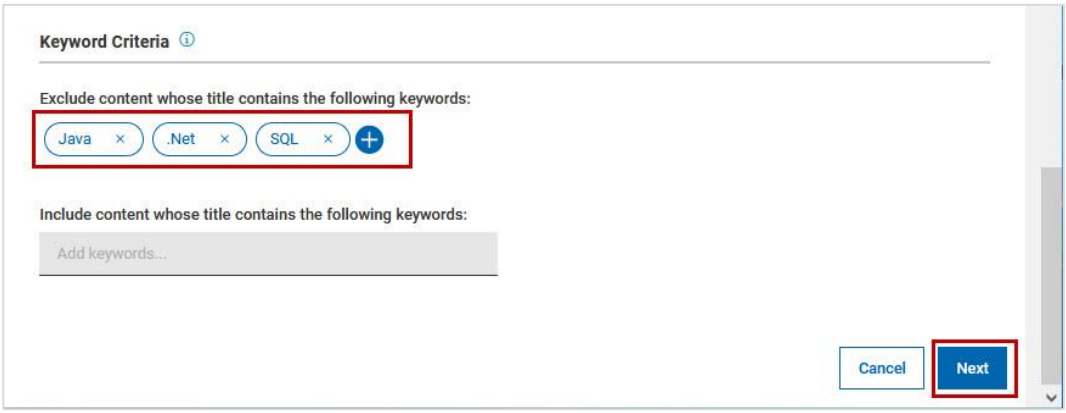


____12) Enter the following keywords in the **Content to Exclude** field. Press **Enter** after entering each string:

- 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



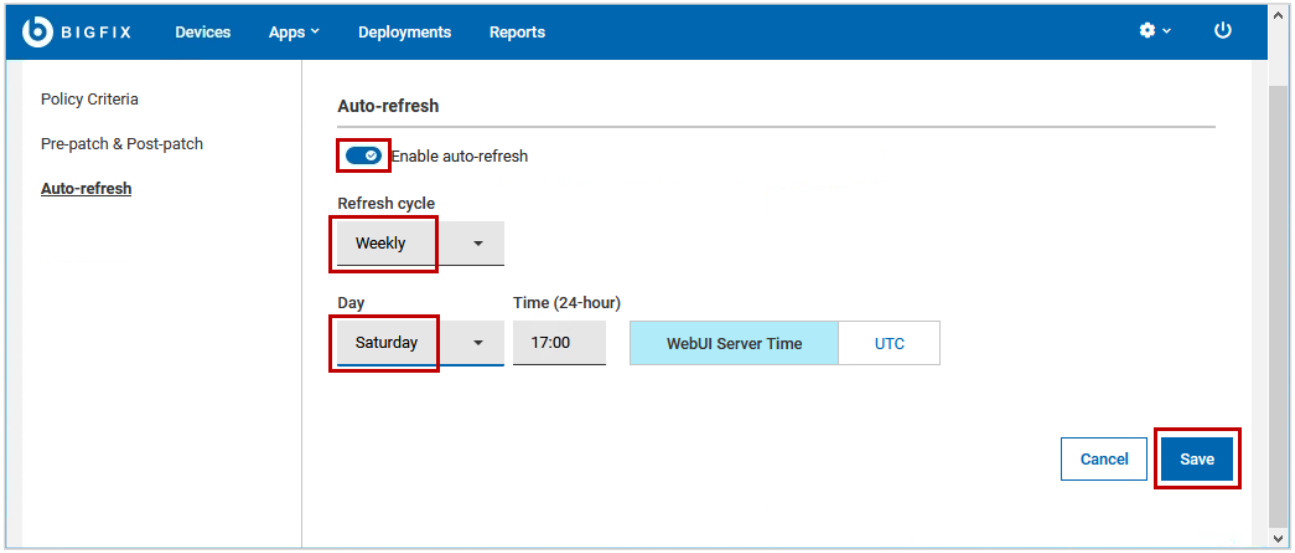
The Pre-patch & Post-patch page opens.

____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.

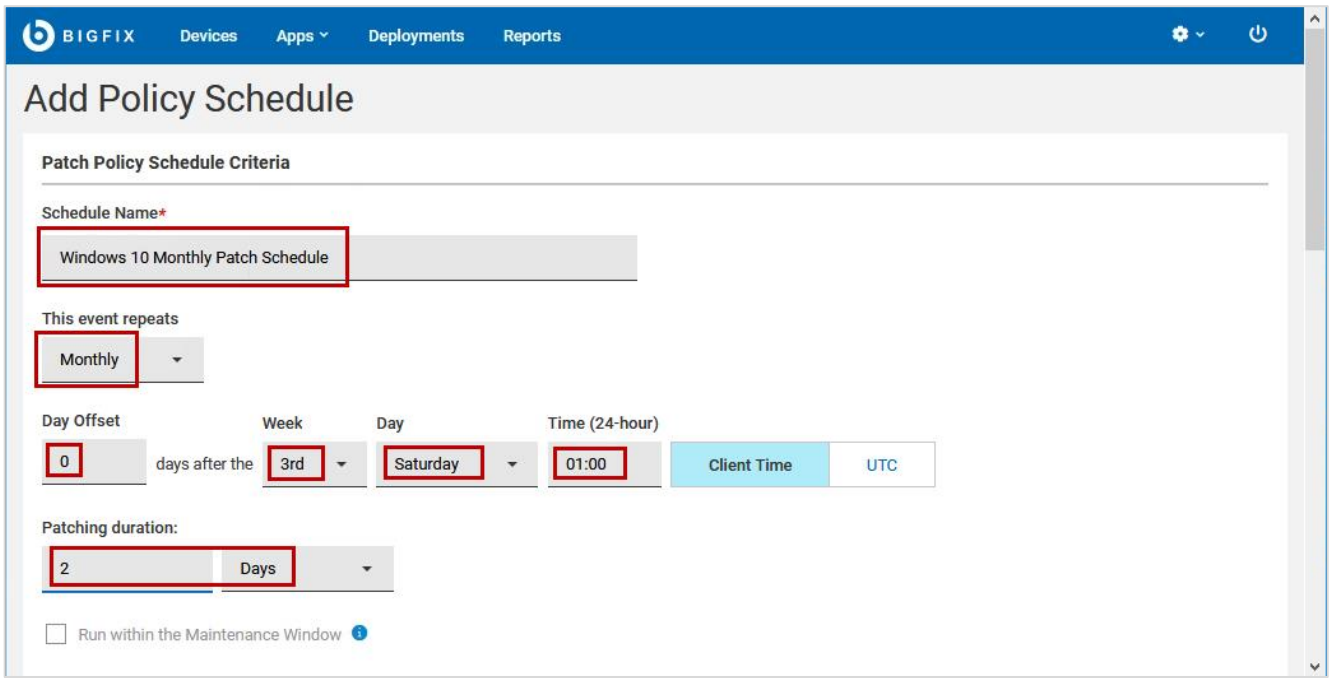
____17) Select **Saturday** from the **Day** drop-down box. Leave the rest of the settings at their defaults and click **Save**. The Windows 10 Patch Policy page opens.



____18) Click **Add Schedule** to define a patch deployment schedule. The Add Policy Schedule page opens.

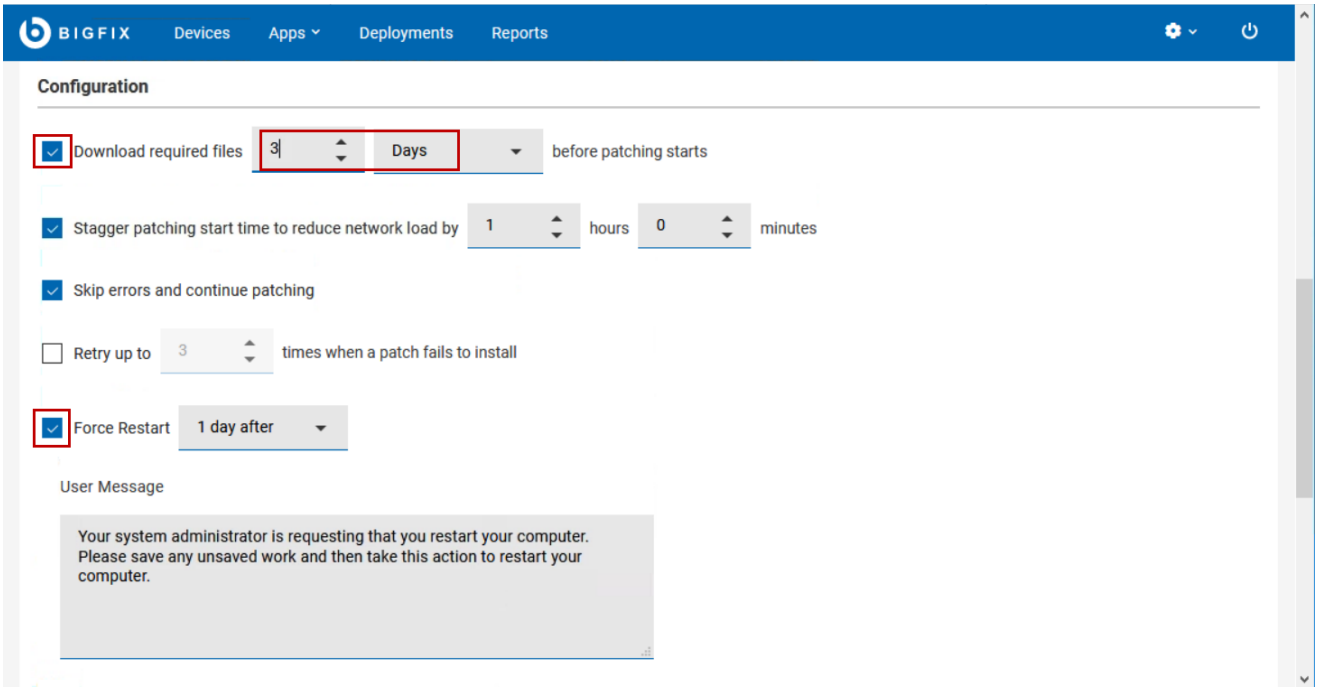
____19) Enter the following information in the **Patch Policy Schedule Criteria** section of the page.

- 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**

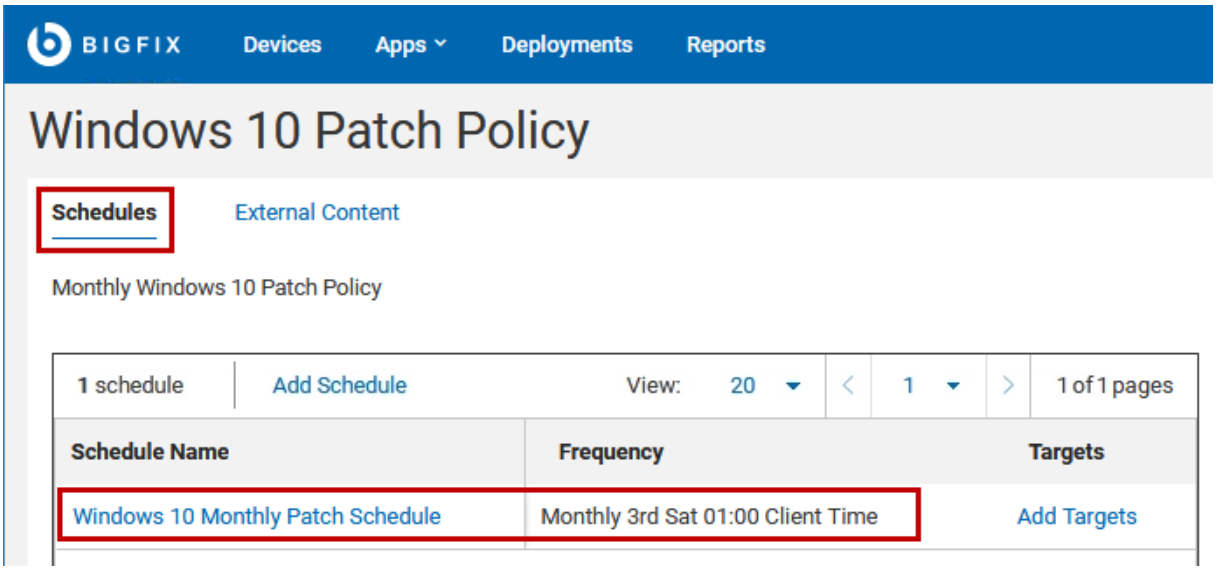


____20) Enter the following information in the **Configuration** section of the page.

- 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.



____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.



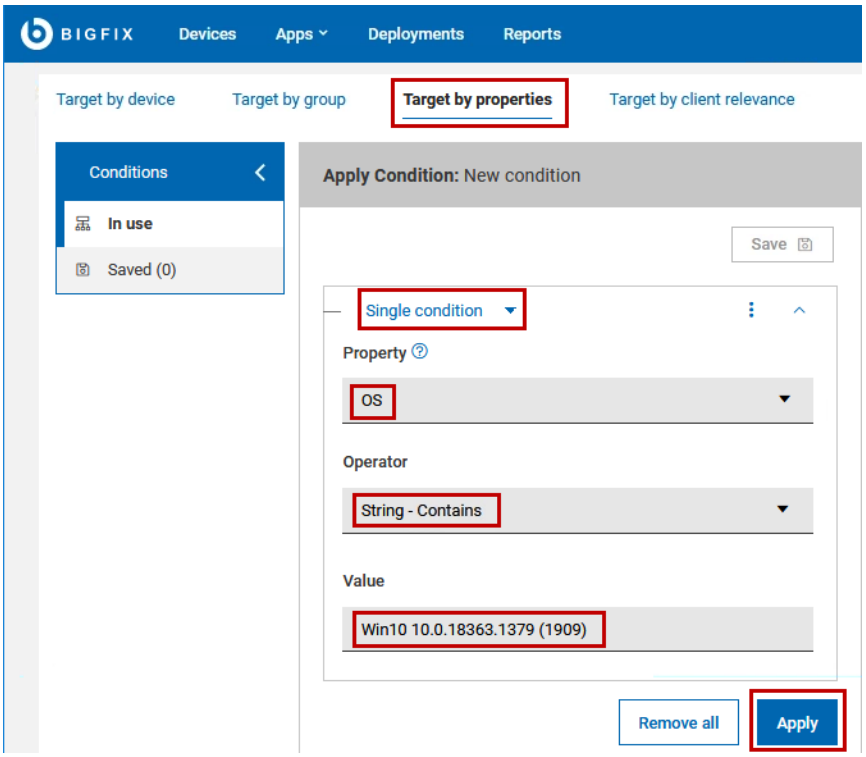
____22) Click the **Add Targets** link in the **Windows 10 Monthly Patch Schedule** row. The Add Targets to Policy page opens.

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

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

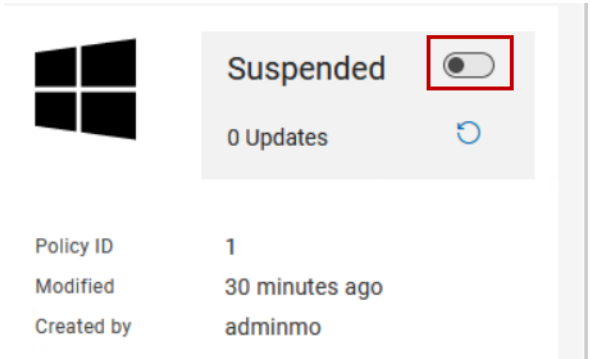
____25) Define the targeting condition as follows:

- 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.



____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.



____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**.

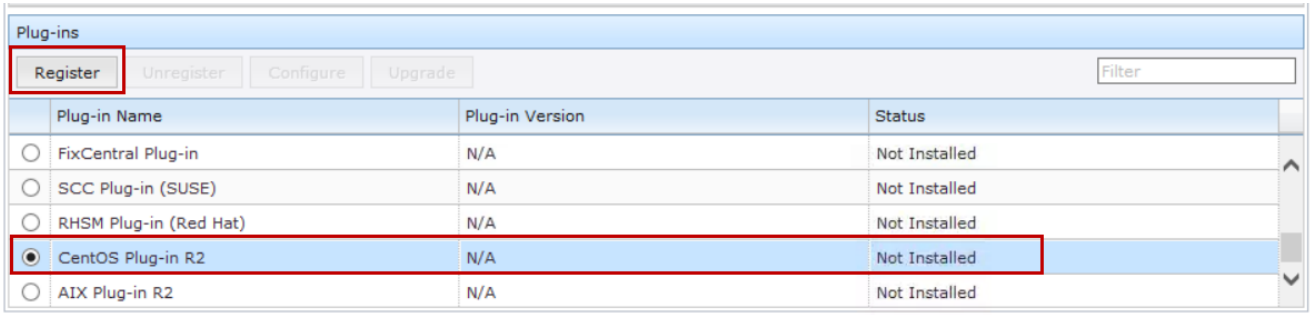
____2) Select the **Patch Management** domain in the lower-left portion of the **Console**. The navigation pane updates to show the Patch Management content.

____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.

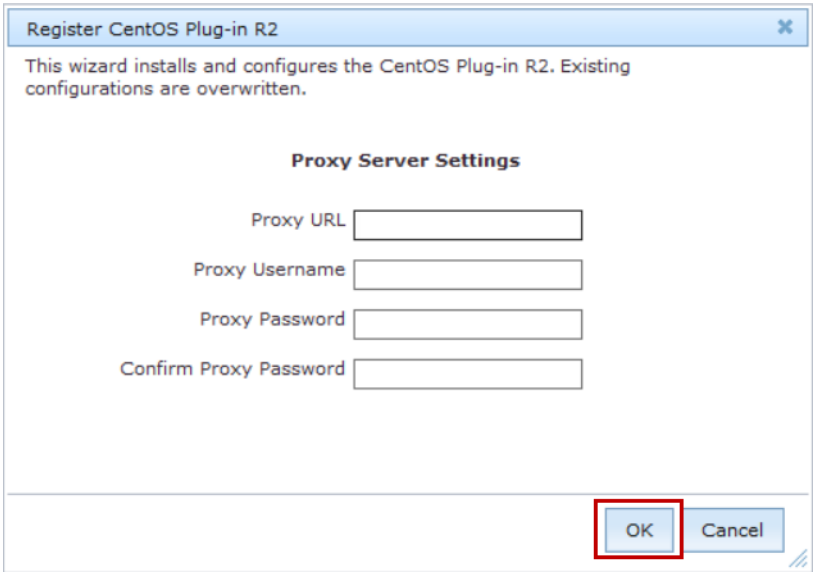
____4) Select the **radio button** beside the **BESFNDWINROOT** computer in the **Servers And Relays** section of the dashboard. The Plug-ins section of the dashboard becomes active at the bottom of the dashboard and shows a list of plug-ins that can be or that are already registered on the selected 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.



____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.



____8) Click the **Target** tab and choose **BESFNDWINROOT** from the list of available targets.

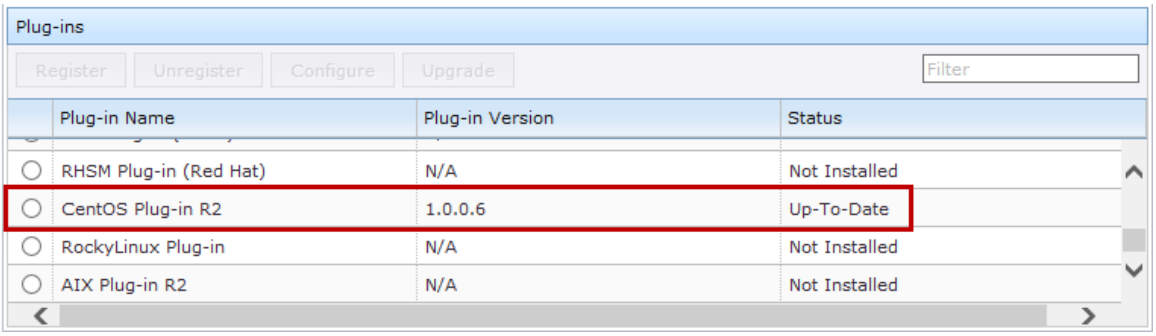
____9) Click **OK** to initiate the action.

____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**.



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.

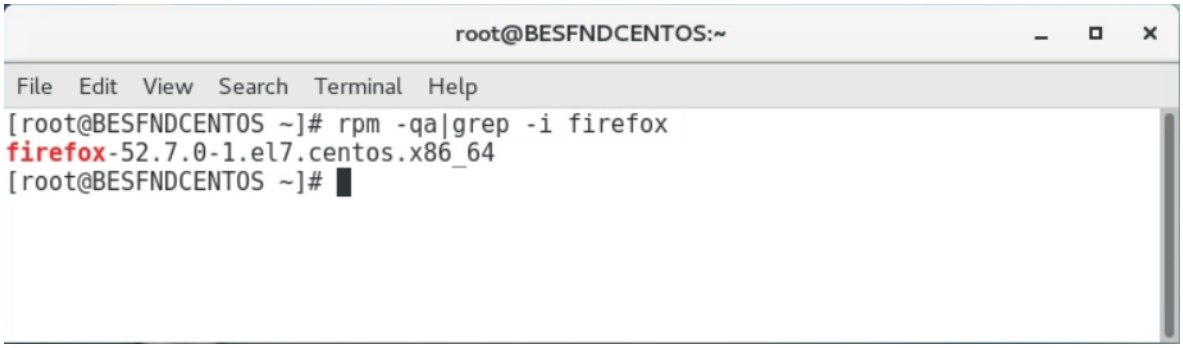
____11) Select **Not listed** and log in as **root** with a password of **bigfixrocks**.

____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.



____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.

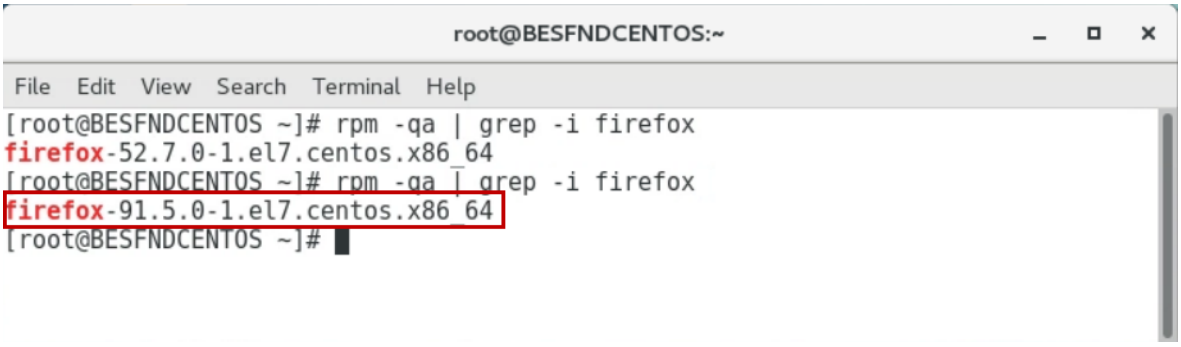
____20) Click the **Target** tab and select **BESFNDCENTOS** from the list of available targets.

____21) Click **OK** to initiate the action. Monitor the status of the action until it changes to **Fixed** before continuing.

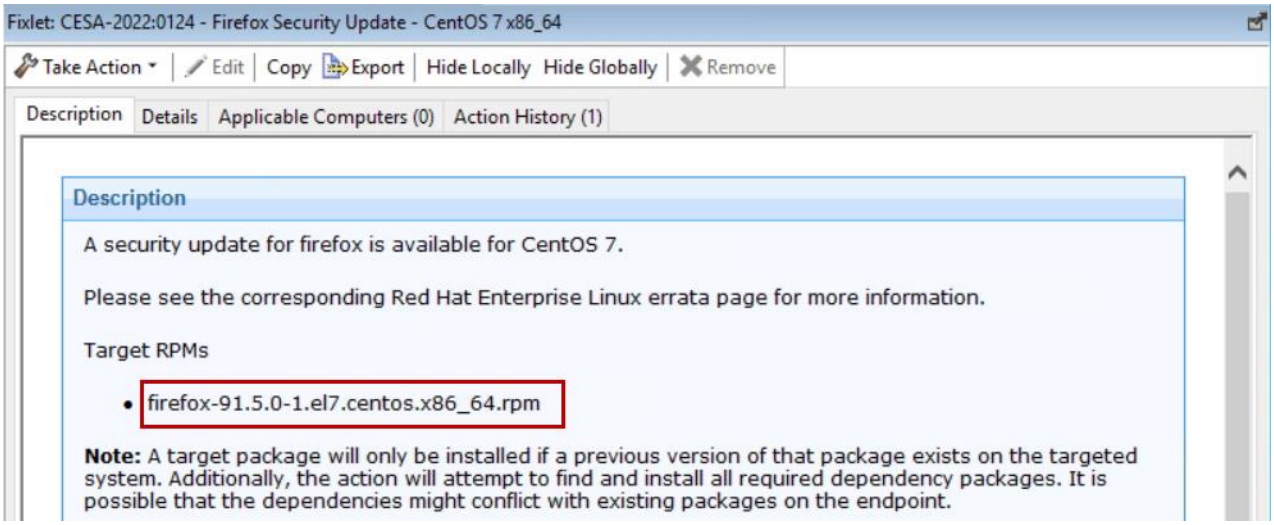
____22) Switch to the **BESFNDCENTOS** virtual machine. If the screen is locked press the **ESC** key and enter **bigfixrocks** as the password for **root**.

____23) Enter the following command to confirm that the Firefox version has been successfully updated:

```
rpm -qa | grep -i firefox
```



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.

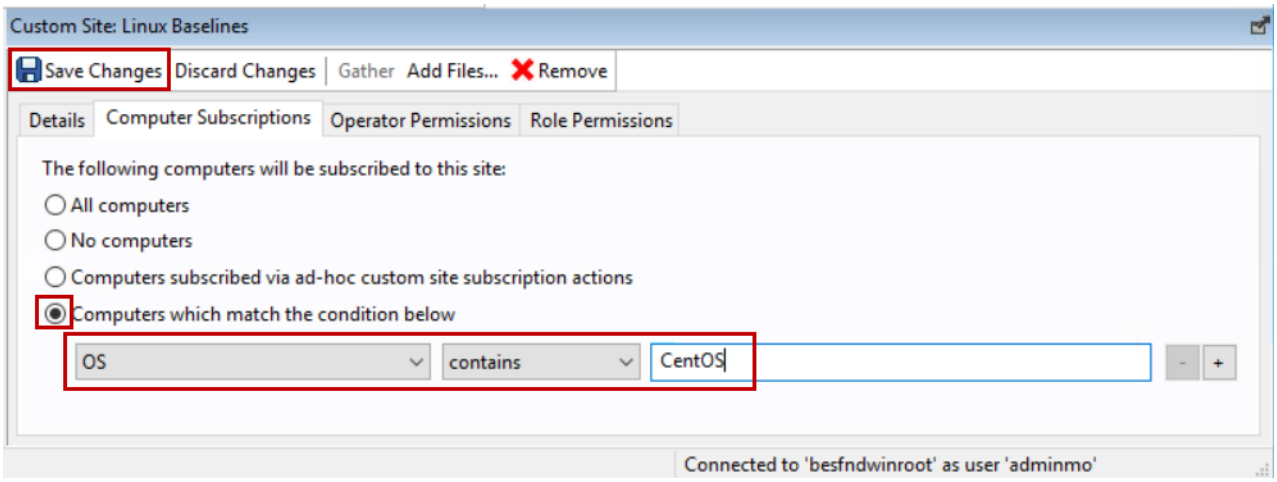
____1) Switch to the **BESFNDWINROOT** virtual machine and return to the BigFix **Console**.

____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



____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.

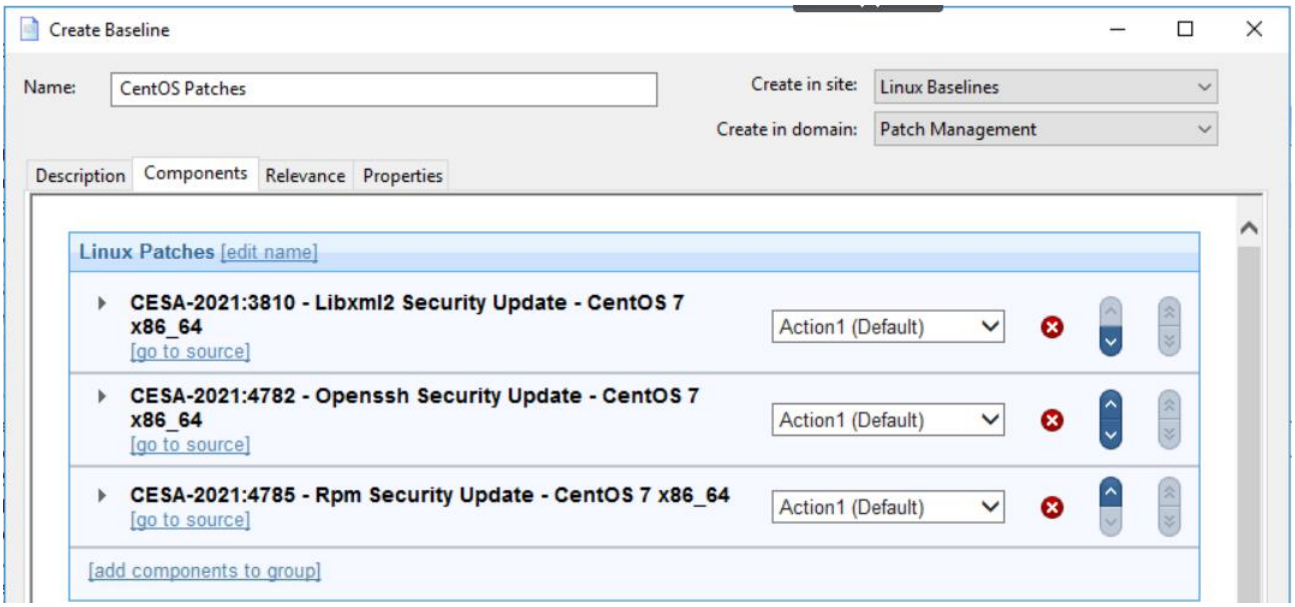
____11) Click the **[edit name]** link next to **Component Group 1**.

____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.



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.

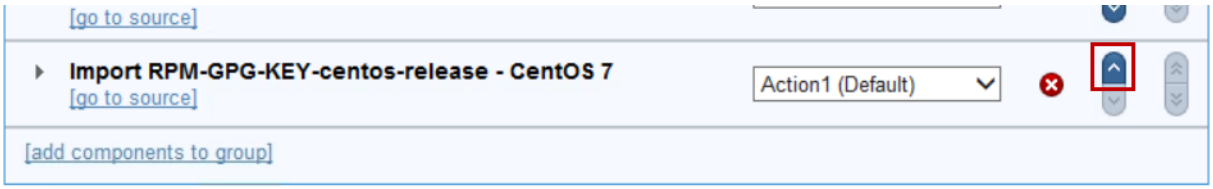
____18) Expand the **All Applicable Tasks > By Site** nodes and select the **Patches for CentOS7 Plugin R2** node. A list of Relevant Tasks is displayed.

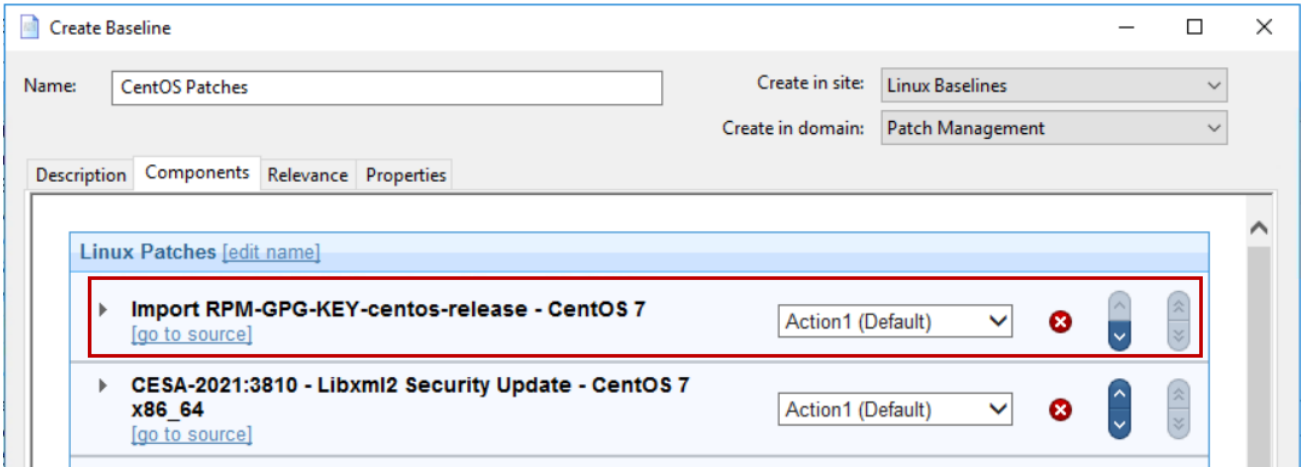
____19) While pressing the **Ctrl-key**, select the following **Tasks** from the list:

- **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**

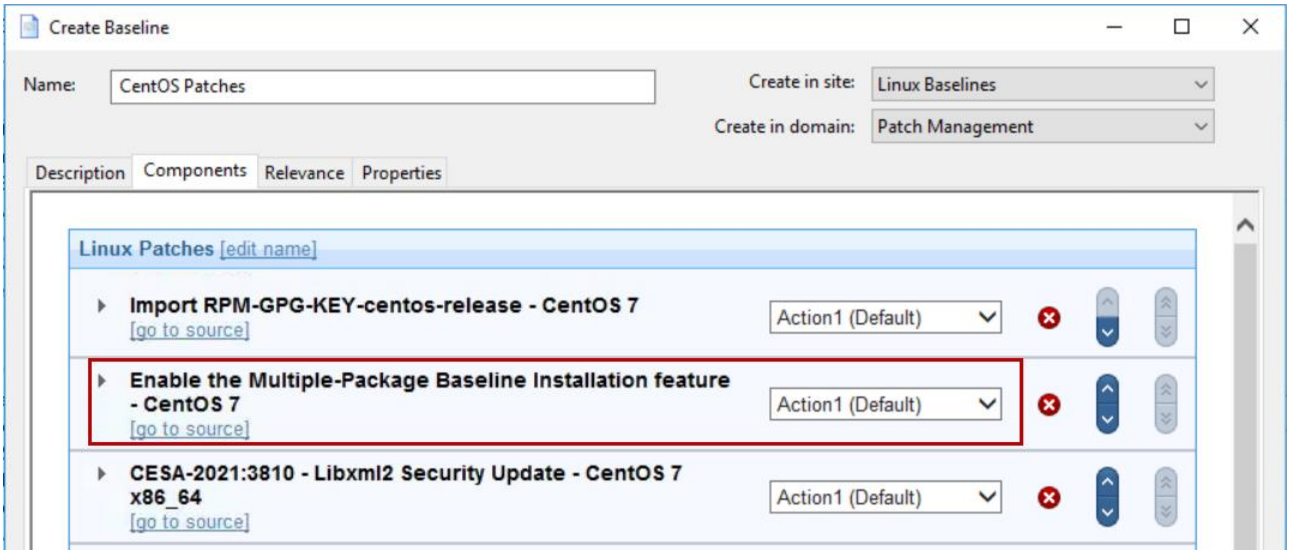
____20) Click **OK**. The 3 Tasks are added as Components to the baseline. You must now put the Multiple-Package baseline Tasks in the correct order.

____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.

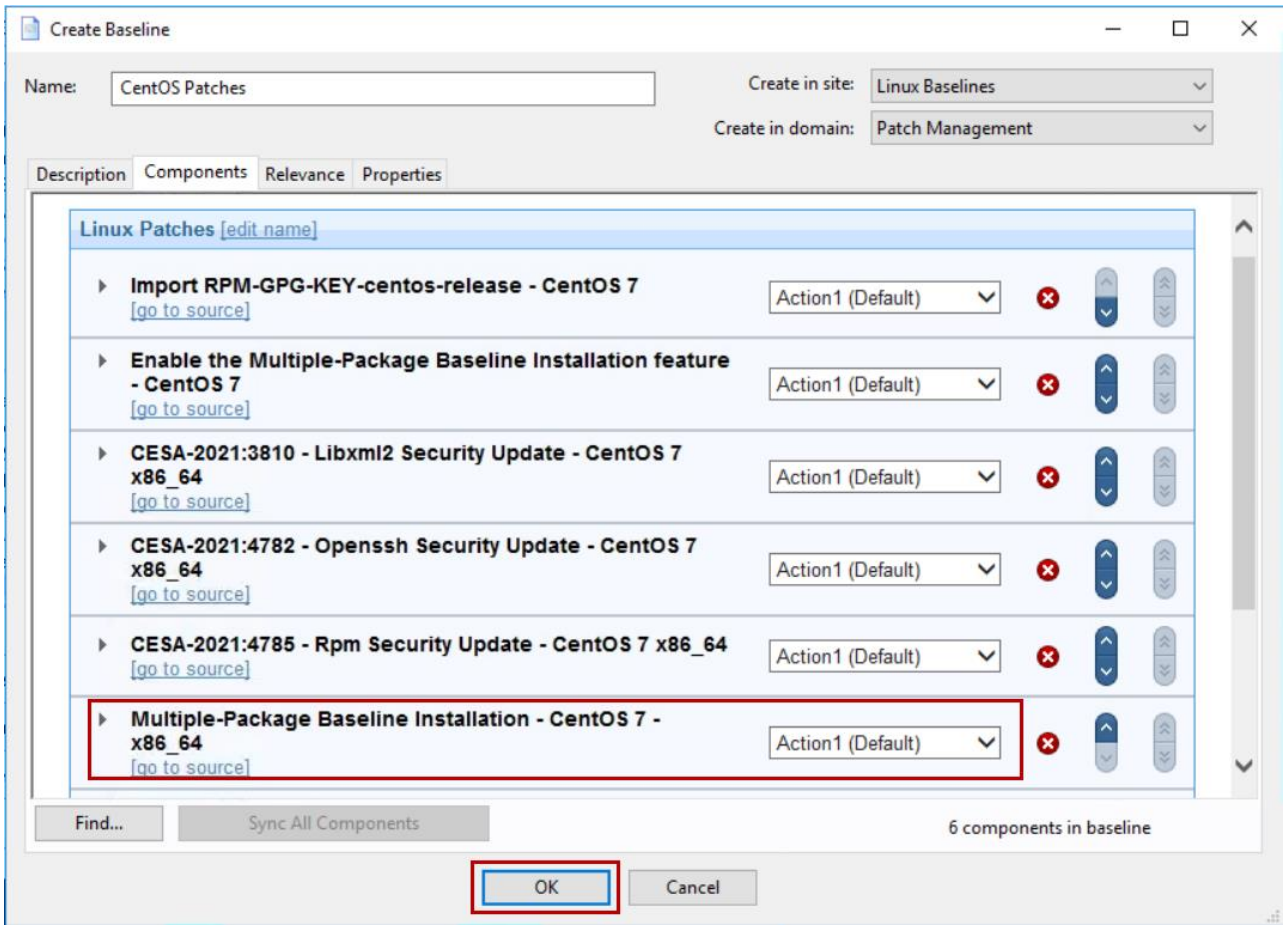




____22) Locate the **Enable the Multiple-Package Baseline Installation feature – CentOS 7** Task and using the **up arrow** that is associated with the Task, move it up in the list until it is the second component in the list. This Task should be placed immediately before any actual Patch Fixlets.



____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.



____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**.

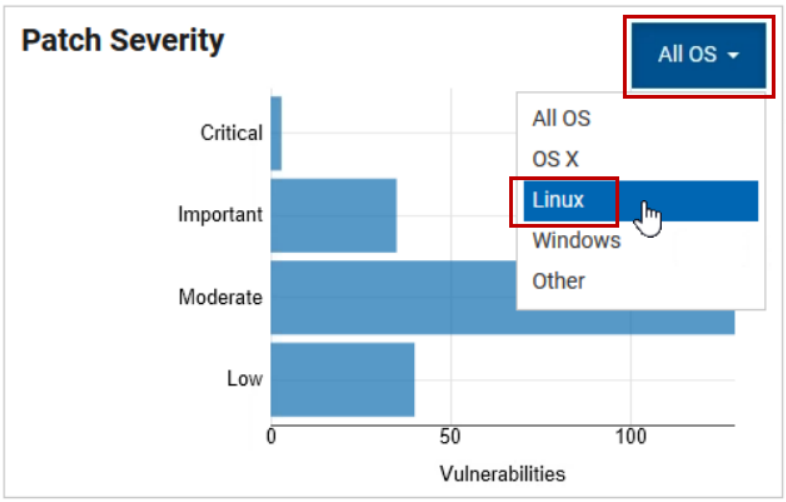
____3) Double-click the **Firefox** icon on the **Windows Desktop** and enter the following URL in the address field:

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.



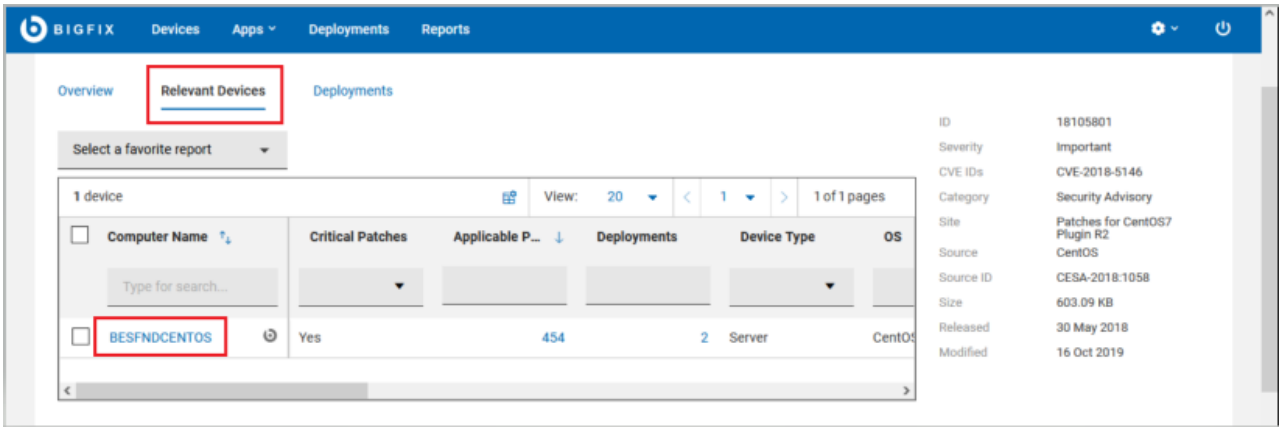
The Patch Severity widget is filtered to show only the Linux patches.

____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.



____25) Click **Deploy Patch**. The Deploy Patch page opens.

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

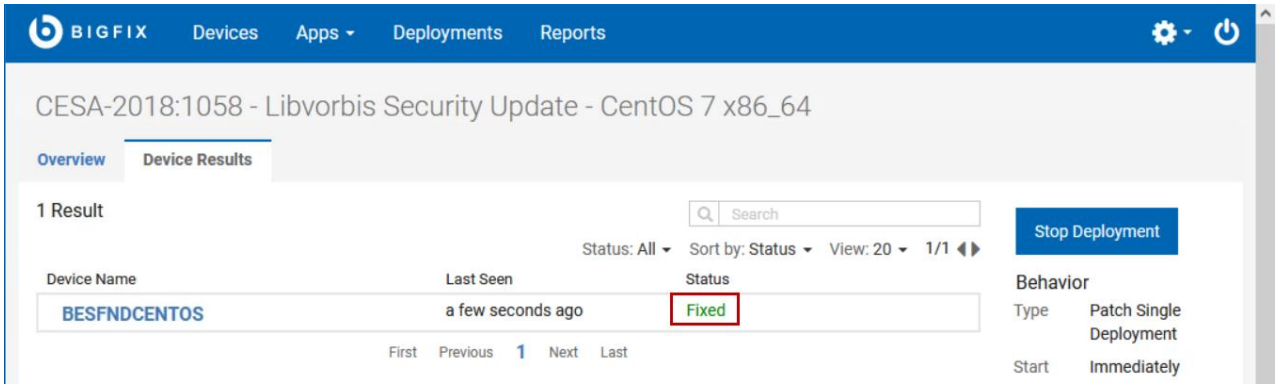
Tip: If a patch contains more than one Action, you must first select desired Action before the **Next** button becomes active allowing you to advance to the Select Targets page.

____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.



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.

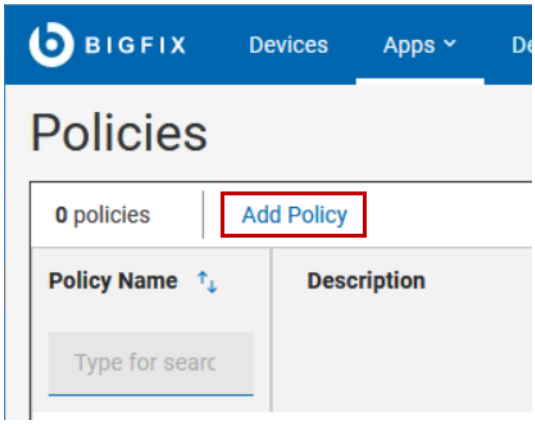
Patch policies are available for Windows, Mac, and Linux operating systems.

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

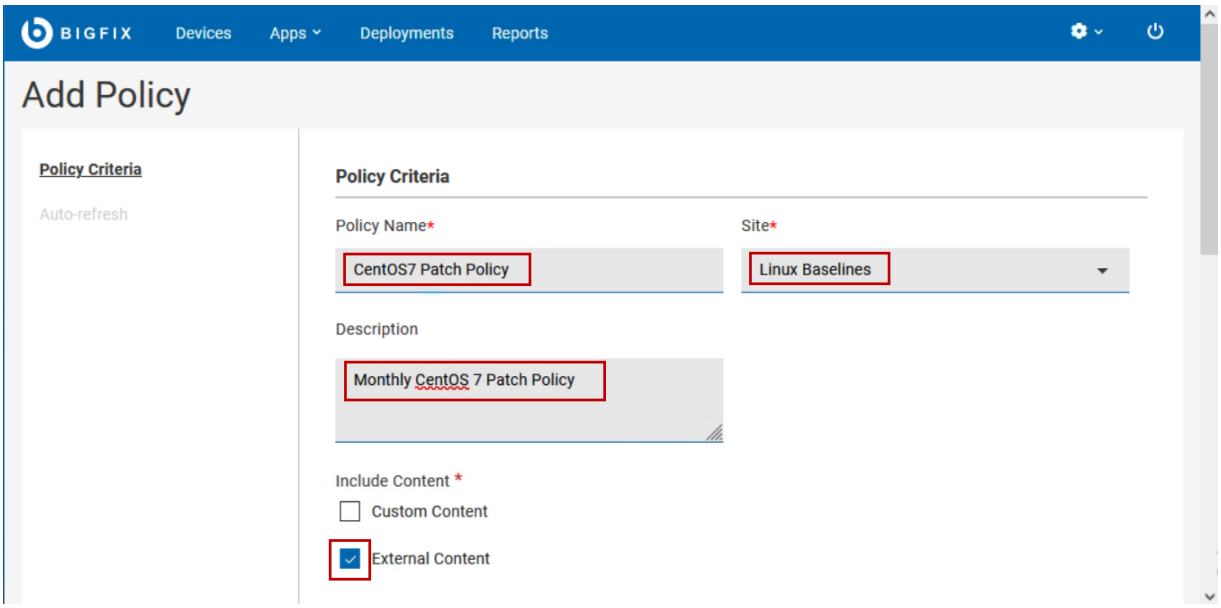


____4) Enter **CentOS7 Patch Policy** in the **Policy Name** field.

____5) Choose **Linux Baselines** from the **Site** drop down box.

____6) Enter **Monthly CentOS 7 Patch Policy** in the **Description** field.

____7) Place a check beside the **External Content** option.

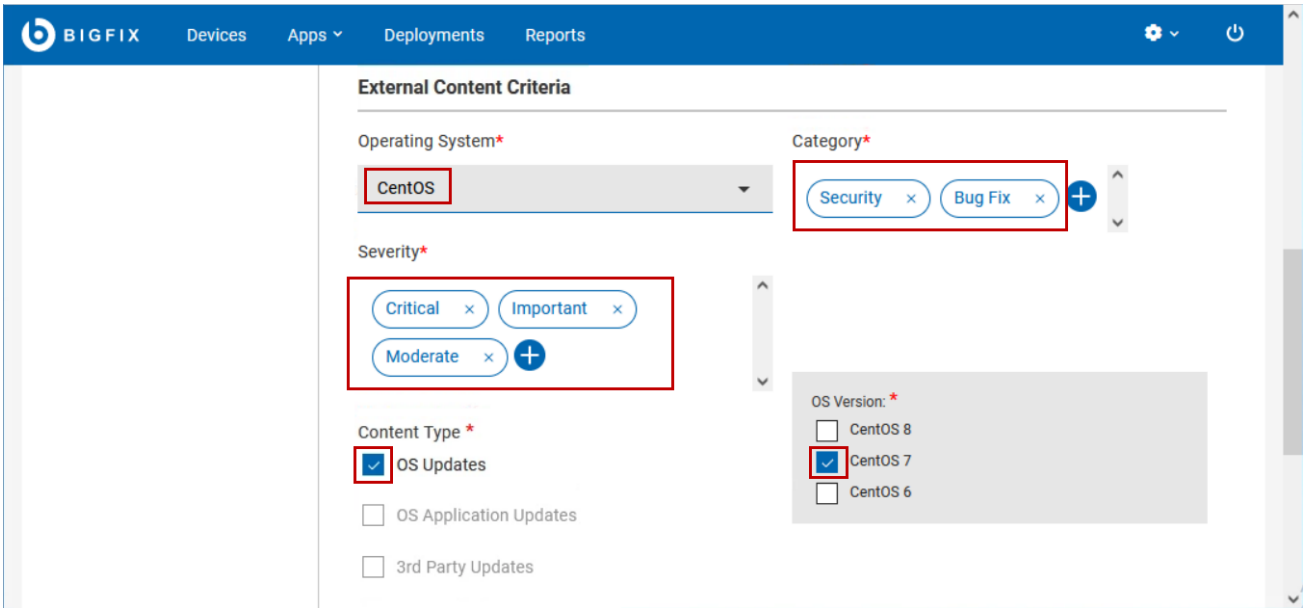


____8) Select **CentOS** from the **Operating System** drop-down box.

____9) Select **Bug Fix** and **Security** from the **Category** drop-down box.

____10) Select **Critical**, **Important** and **Moderate** from the **Severity** drop-down box.

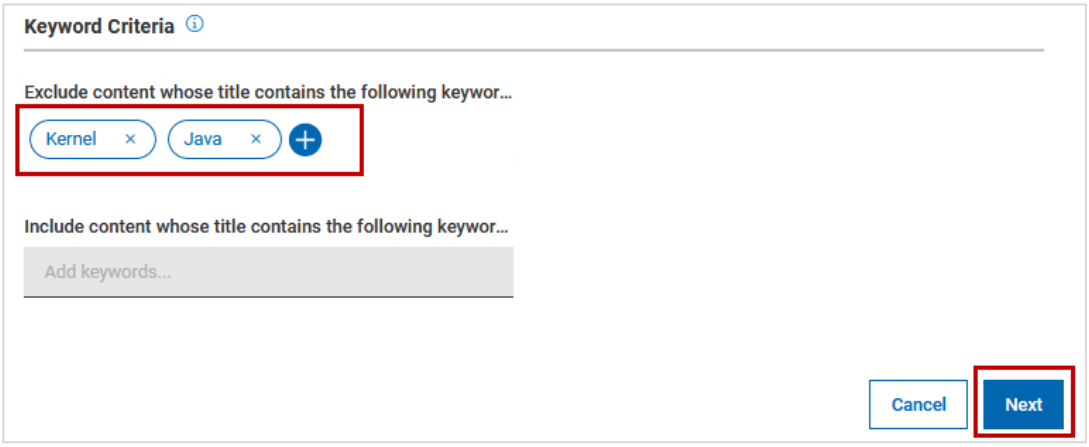
____11) Select **OS Updates** in the **Content Type** section and then select **CentOS 7** as the **OS Version**.



____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.



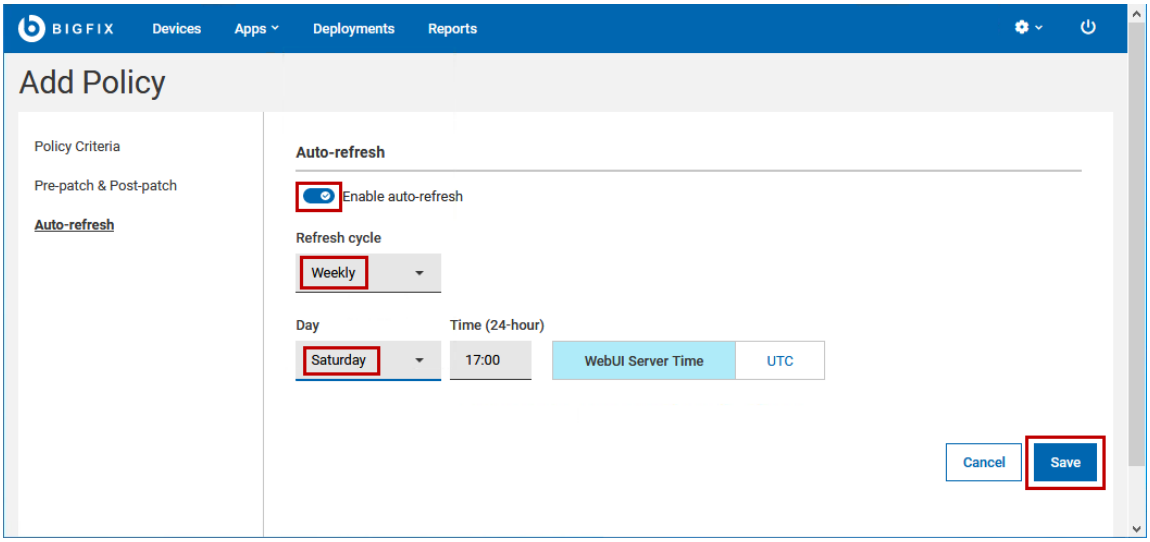
____14) Click **Next**. The Pre-patch & Post-patch page opens.

____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.

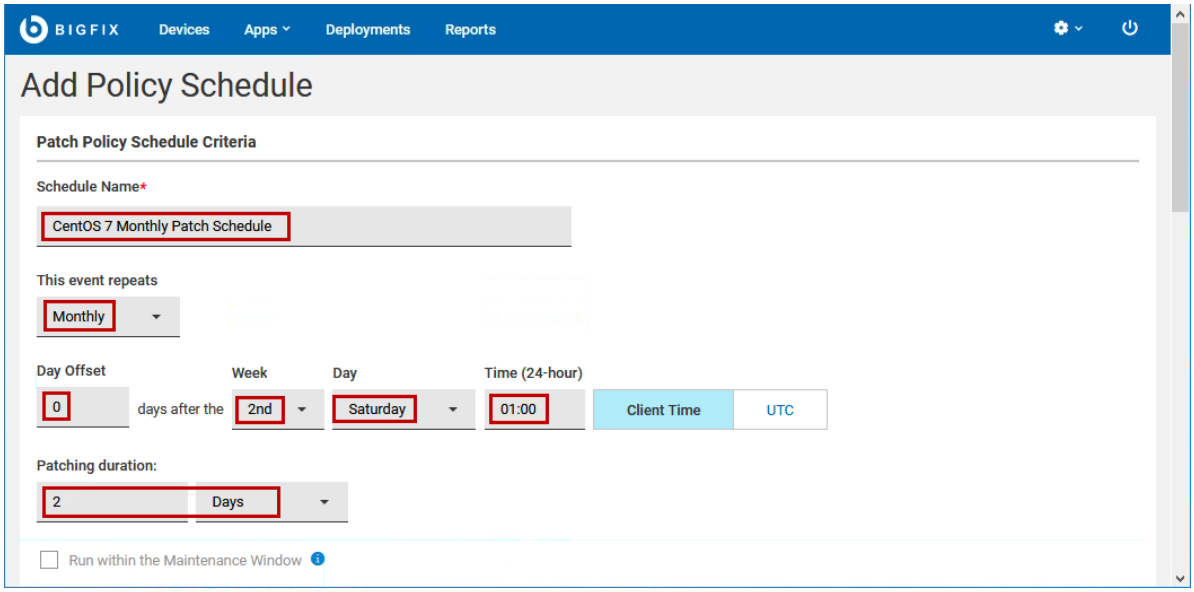


____19) Click **Add Schedule** to define a patch deployment schedule. The Add Policy Schedule page opens.

____20) Enter the following information in the **Patch Policy Schedule Criteria** section of the page.

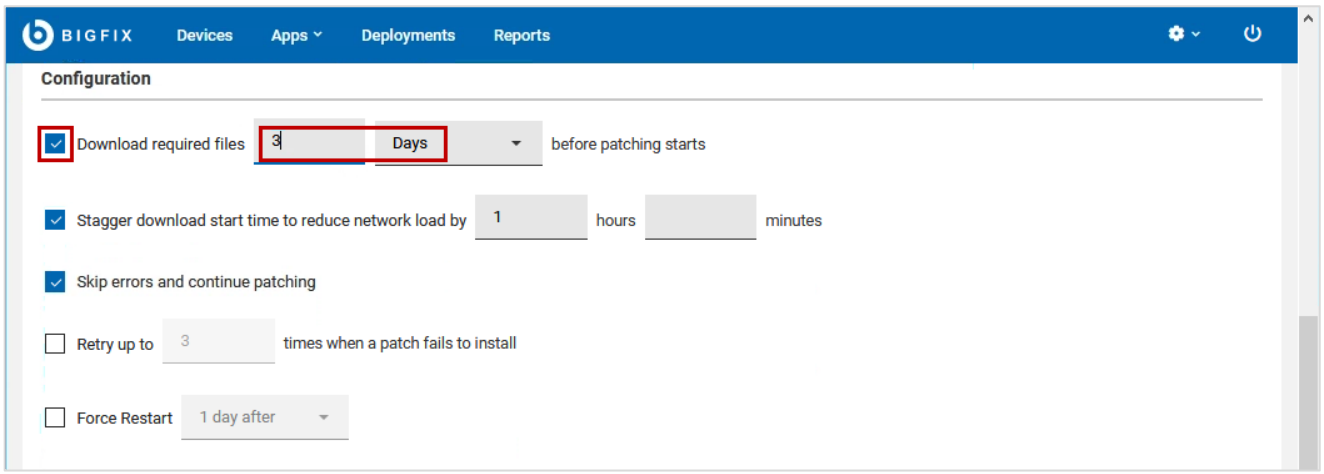
- Enter **CentOS 7 Monthly Patch Schedule** in the **Schedule Name** field.
- Leave the default value of **Monthly** in the **This event repeats** field.
- Choose **0** from the **Day Offset** drop-down box.
- Choose **2nd** from the **Week** drop-down box
- Choose **Saturday** from the **Day** drop-down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

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

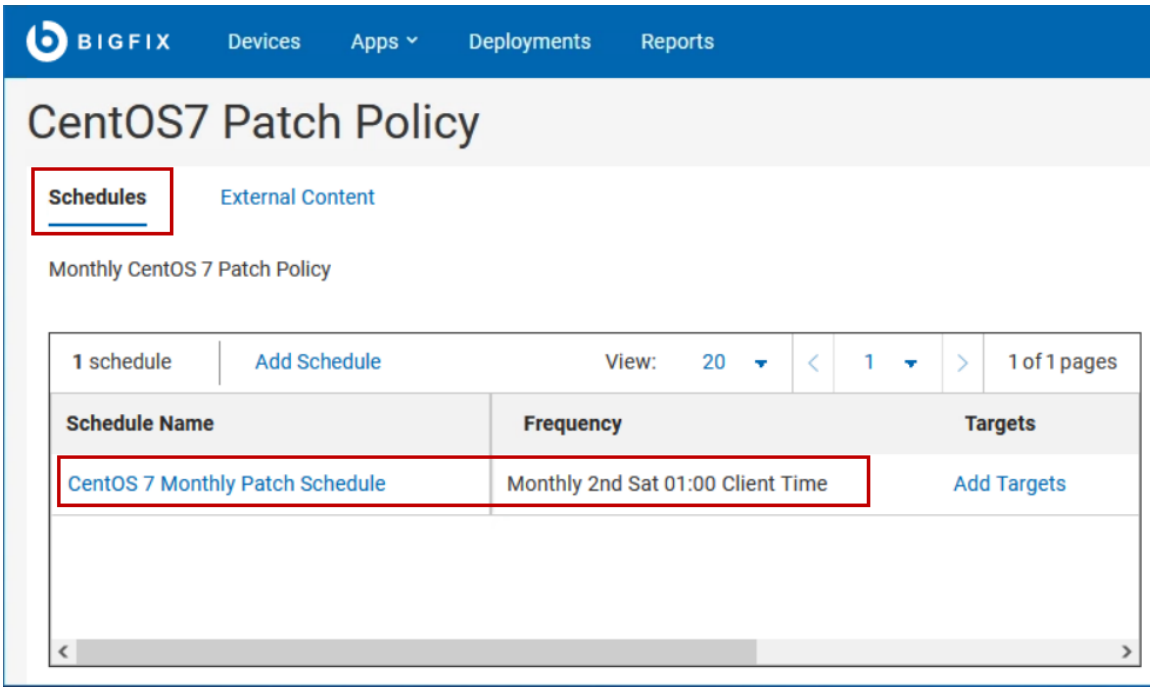


____21) Enter the following information in the **Configuration** section of the page.

- Select the **Download** required files option and set the value to **3 Days** before patching starts.

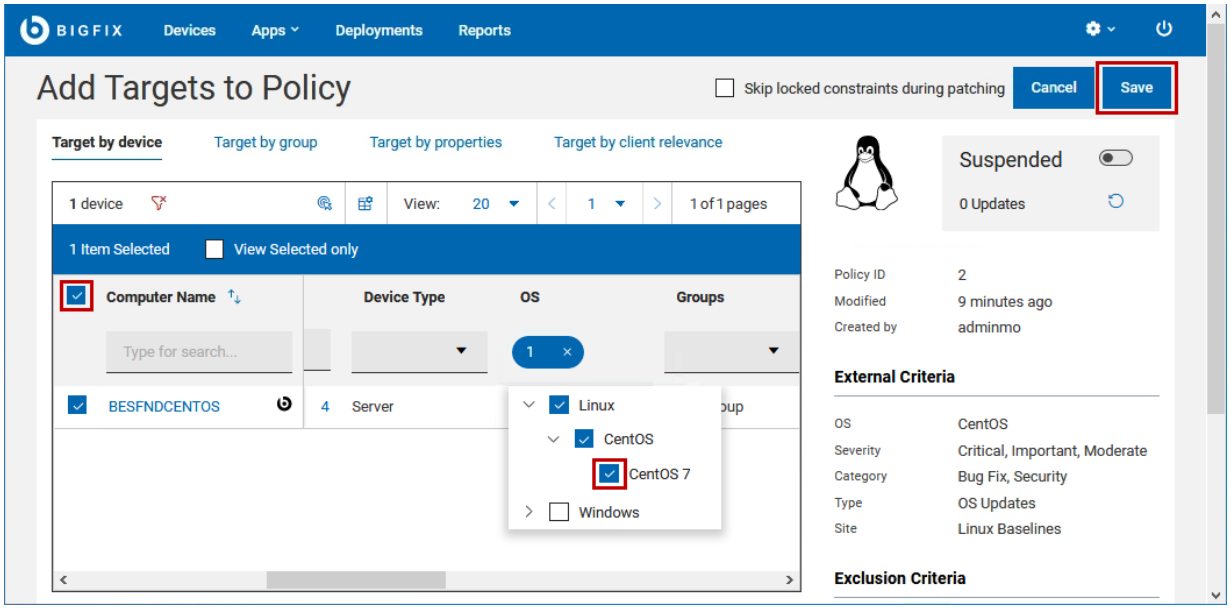


____22) Scroll to the bottom of the page and click **Save**. The CentOS7 Patch Policy page opens and the schedule that was just defined appears in the Schedules tab.



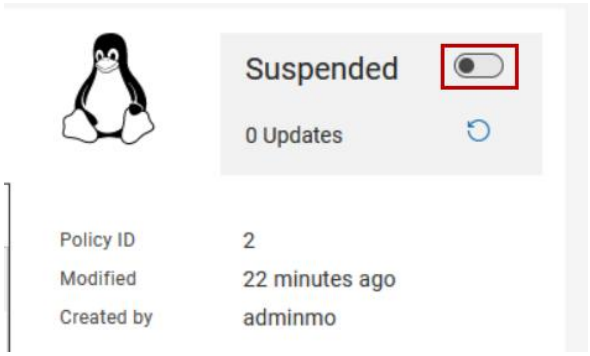
____23) Click the **Add Targets** link in the **CentOS 7 Monthly Patch Schedule** row. The Target Devices page opens.

____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**.



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.



____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.

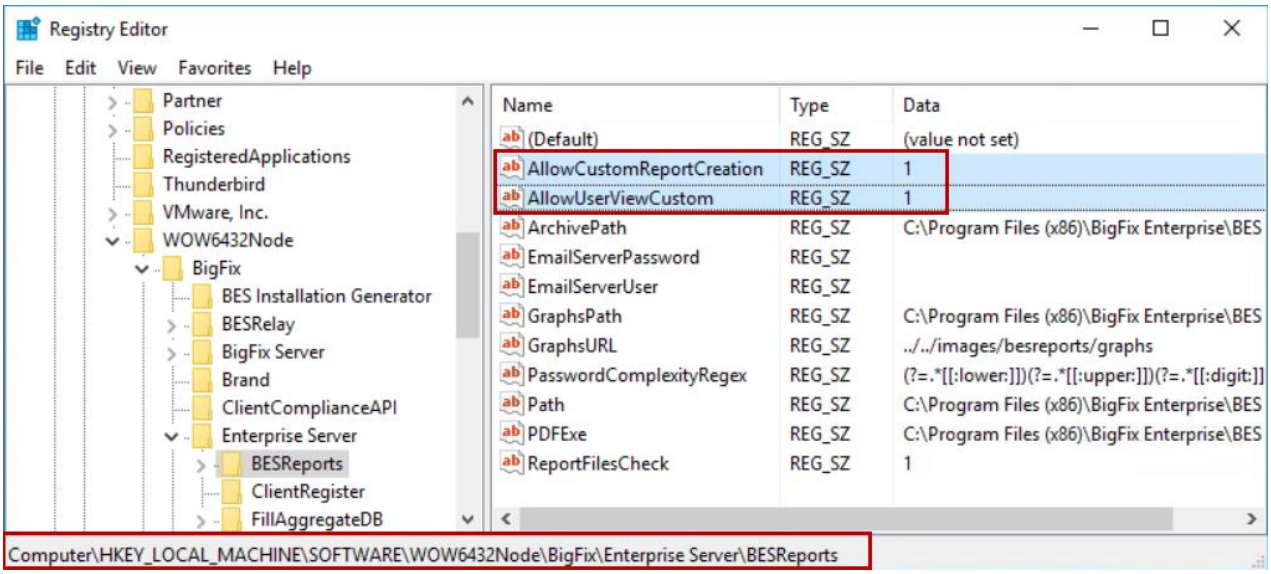
____1) Switch to the **BESFNDWINROOT** virtual machine and log in as **Administrator** with a password of **bigfixrocks**.

____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**.



____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**

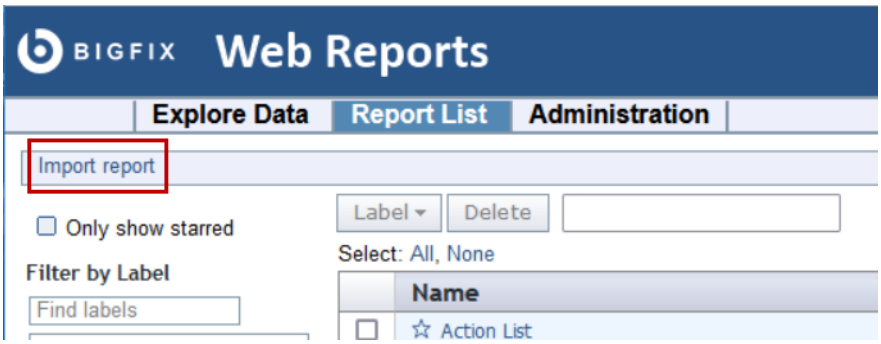
___c) Password: **B1gfixrocks**

___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.



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**.

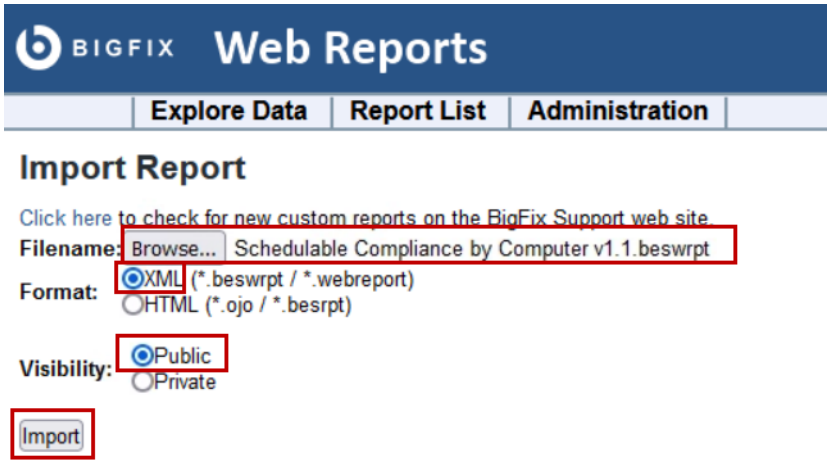
___c) Double-click the **Schedulable Compliance Reports v1.1** folder.

___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.

____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**.

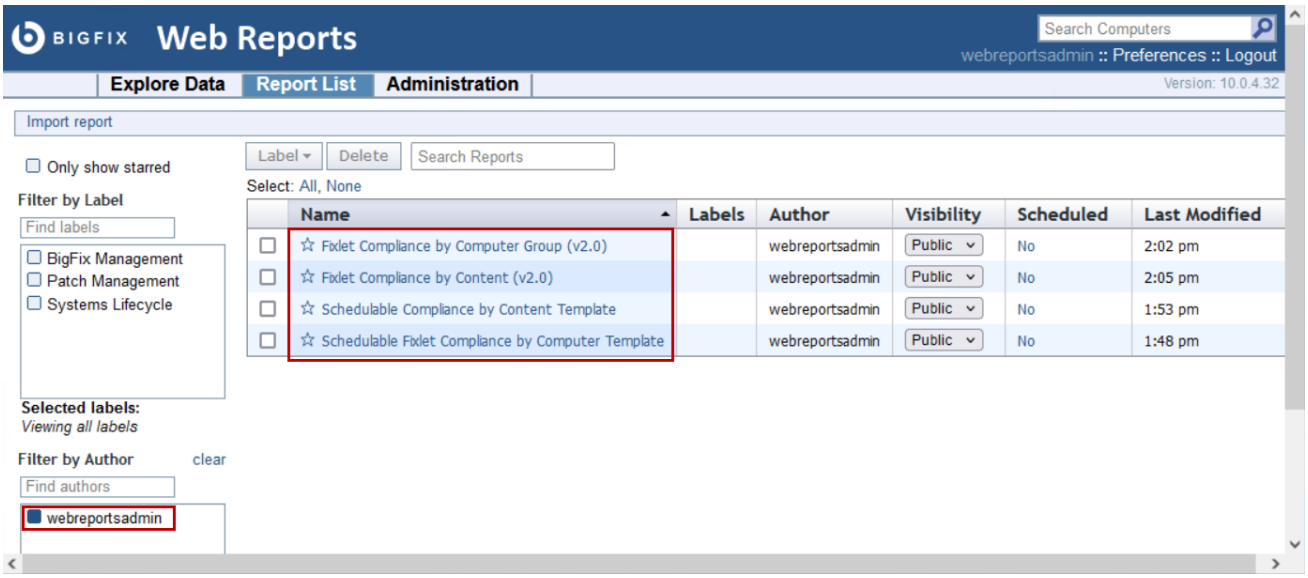
The Report List page opens and the new report appears in the list.

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

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.

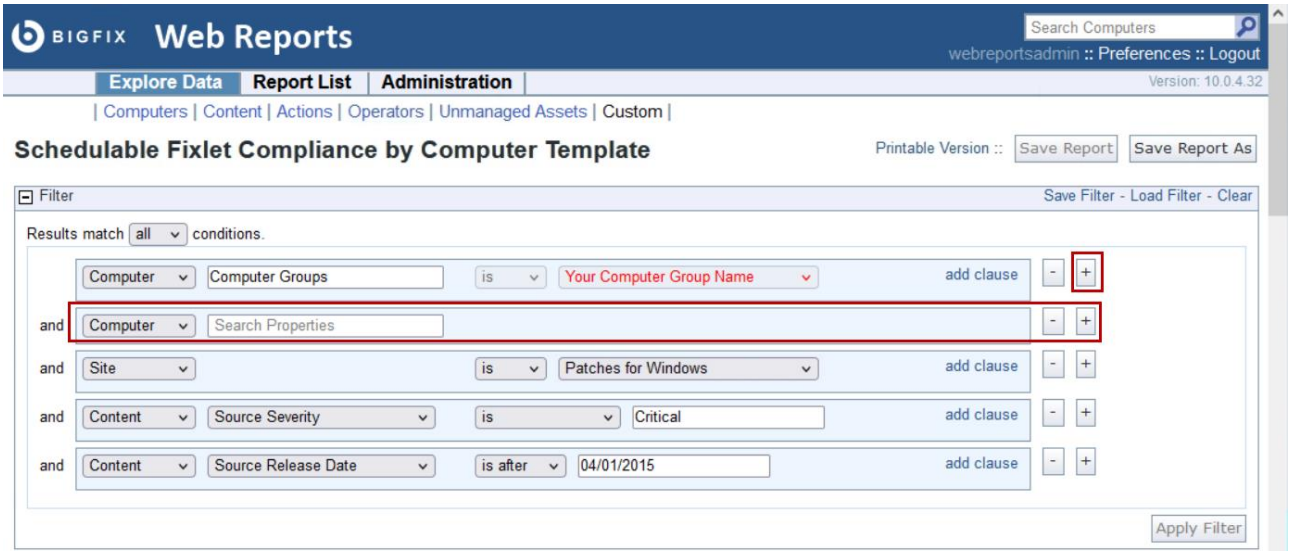
____11) Select the box beside **webreportsadmin** in the **Filter by Author** section of the **Reports List** page. The list of reports is filtered to show only those that were created by the webreportsadmin user.



____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.



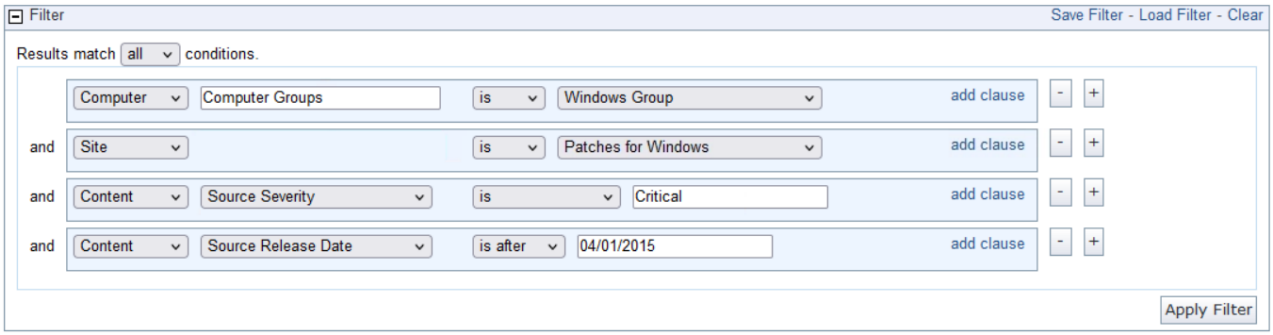
____15) Modify the new filter as follows:

___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.

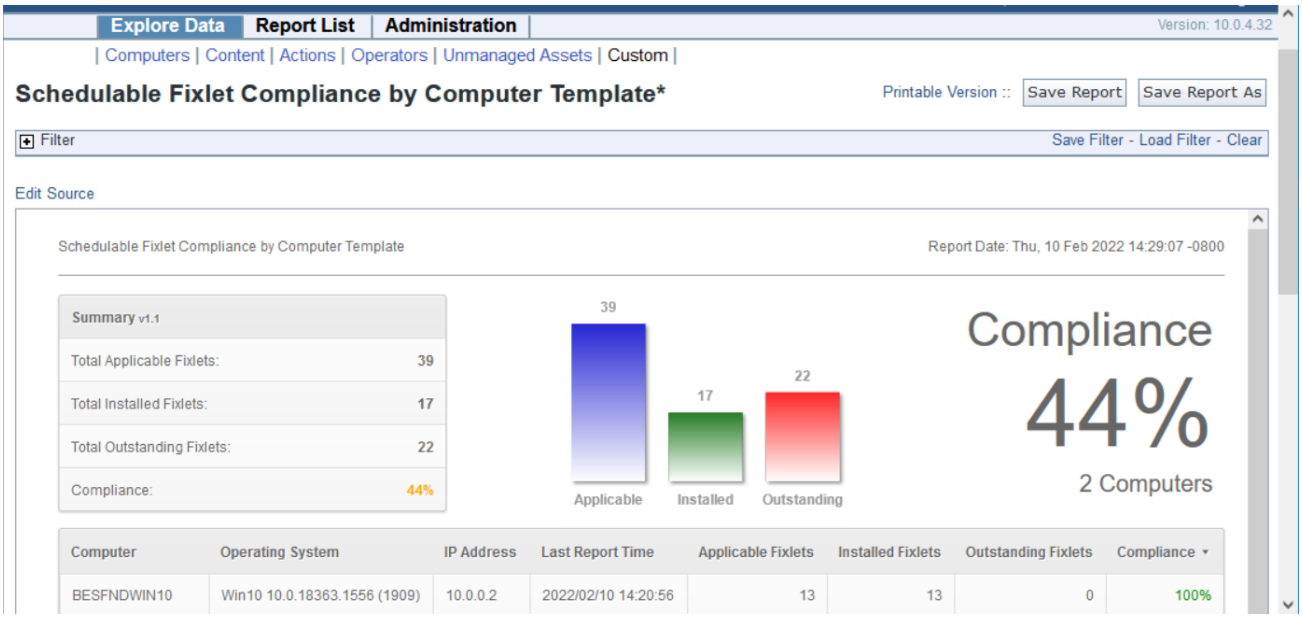
___c) Select **Windows Group** from the last drop-down box.

____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:



____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.



____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.

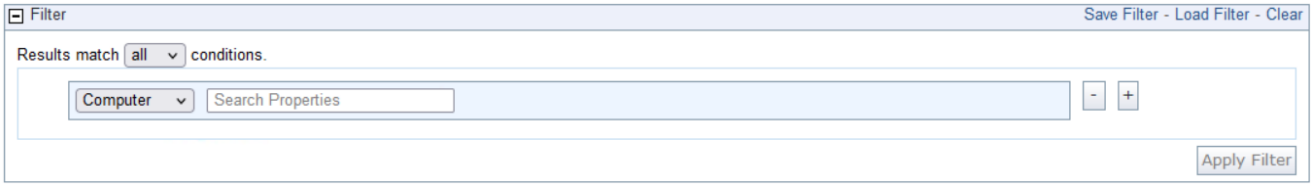
Exercise 29: Exploring Data and Using Filters

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.



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.

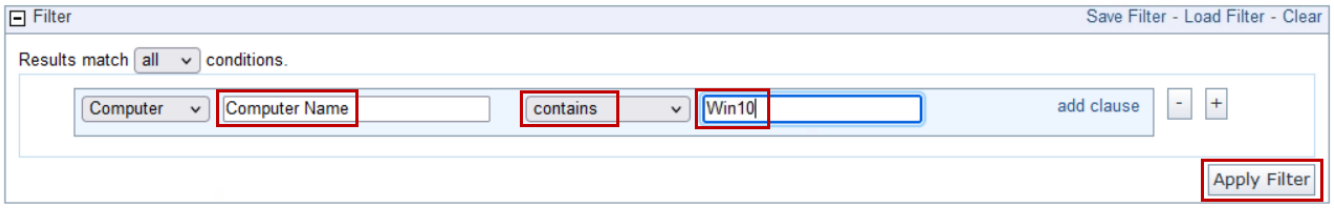
____4) Modify the default filter as follows:

___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**.



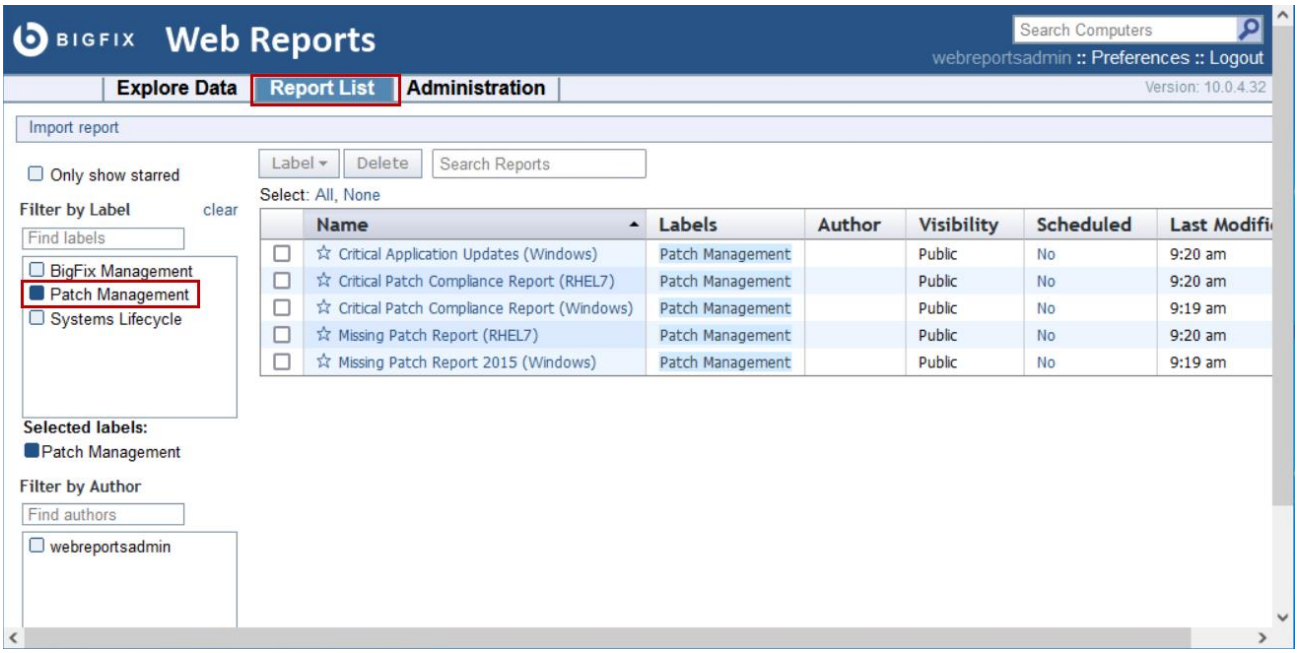
The report at the bottom of the page is updated to reflect the new filters.

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.



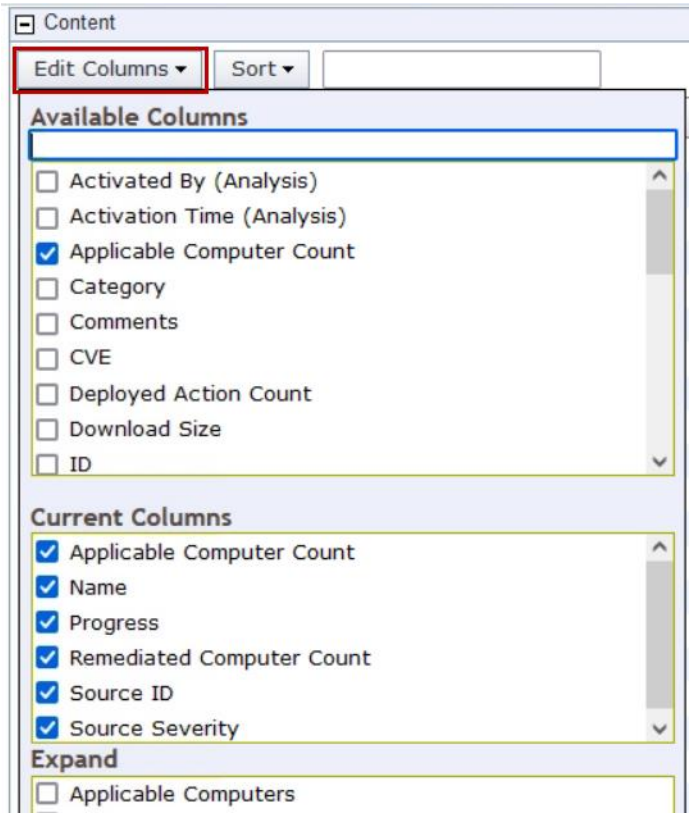
____8) Click the **link** for the **Critical Patch Compliance Report (Windows)** report. The selected report opens in the Firefox browser.

____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.

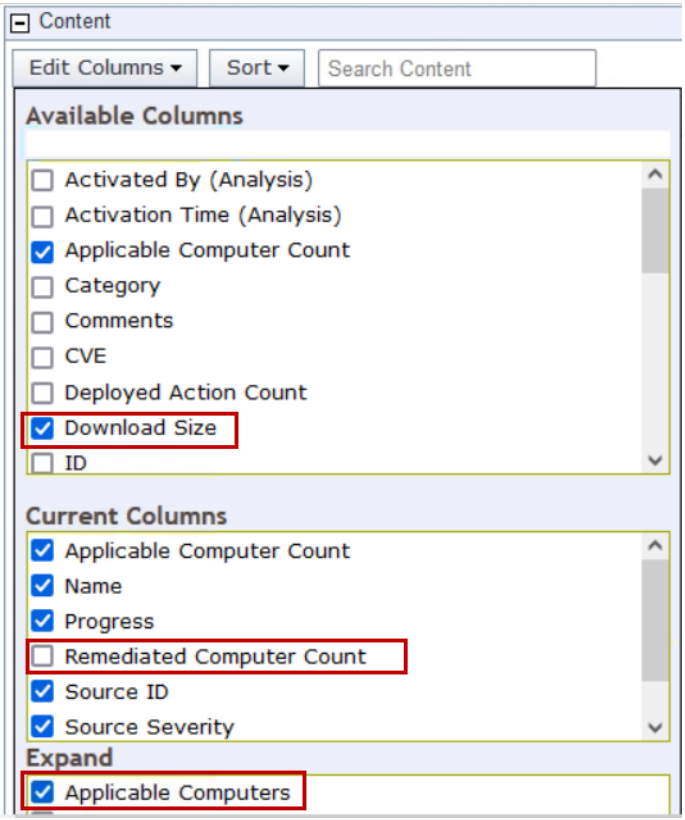


____10) Update the report by making the following changes in the Edit Columns pane:

___a) Place a check beside the **Download Size** option in the Available Columns section of the Edit Columns pane.

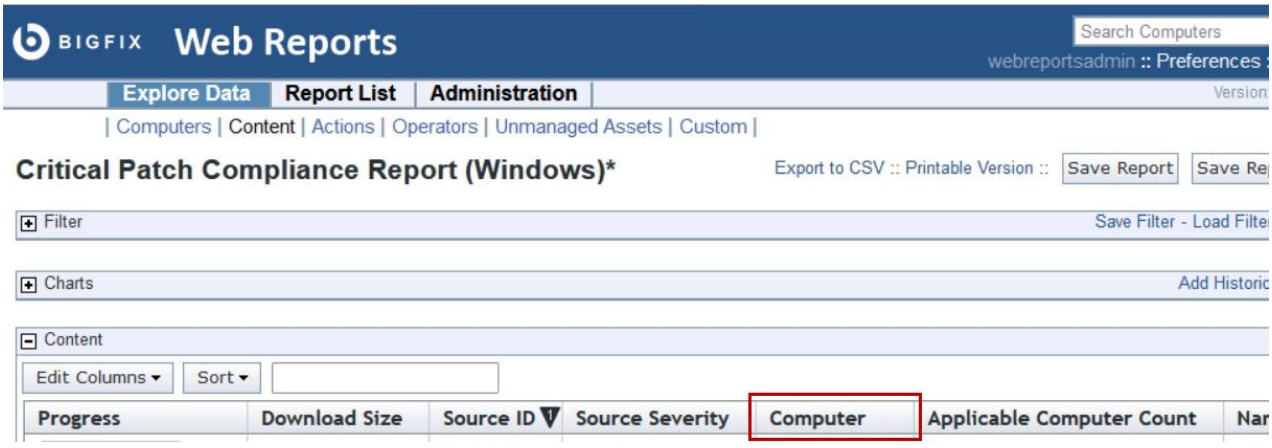
___b) Un-check **Remediated Computer Count** in the **Current Columns** section of the **Edit Columns** pane.

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



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.



____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:

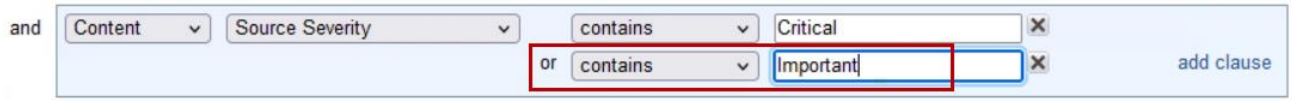
- **Content Type is Fixlet**: Consider only Fixlets and exclude tasks.
- **Content Visibility is Visible**: Return only Fixlets that are not globally hidden.
- **Content Applicable Computer Count greater than 0**: This condition says that for a Fixlet to be return it must be applicable to 1 or more endpoints.
- **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.



____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**.

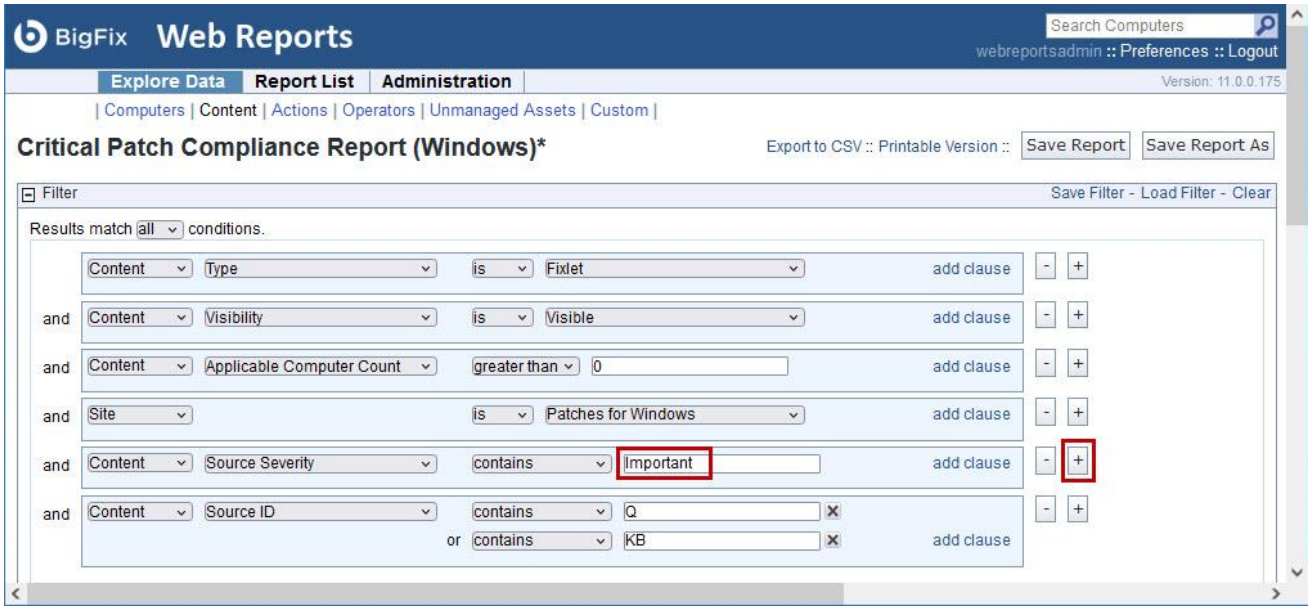
____2) Click **Report List**. A list of existing reports is displayed.

____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.

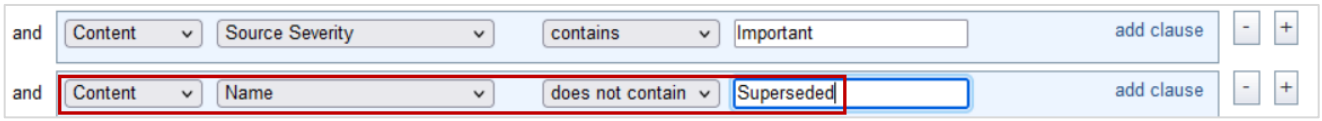
____5) Locate the **Source Severity** condition and change the value from **Critical** to **Important.**

____6) Click the plus (**+**) icon located to the right of the **Source Severity** condition. A new filter condition row opens.

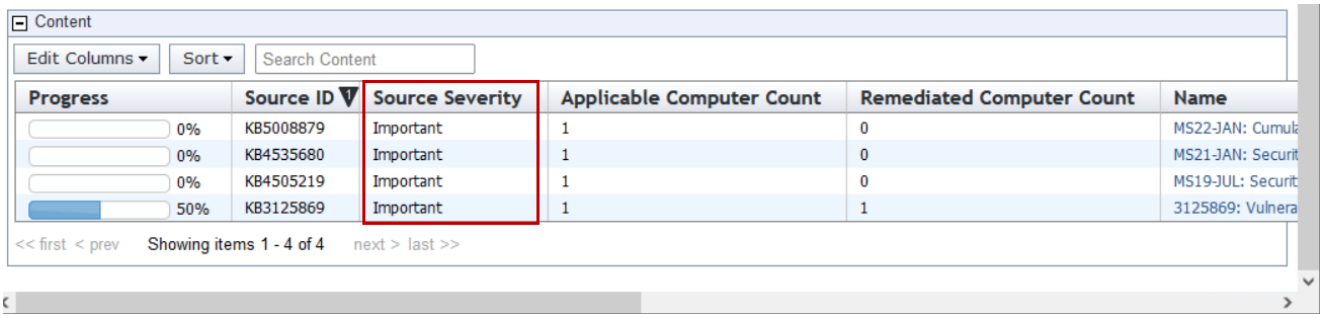


____7) Define the new Filter condition as follows:

Content Name does not contain Superseded

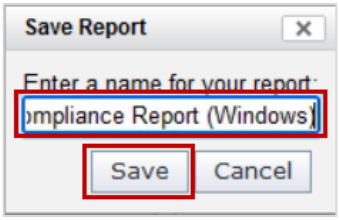


____8) Click **Apply Filter** in the lower-right portion of the **Filter** section. The report updates to reflect the data returned by the new filter conditions.



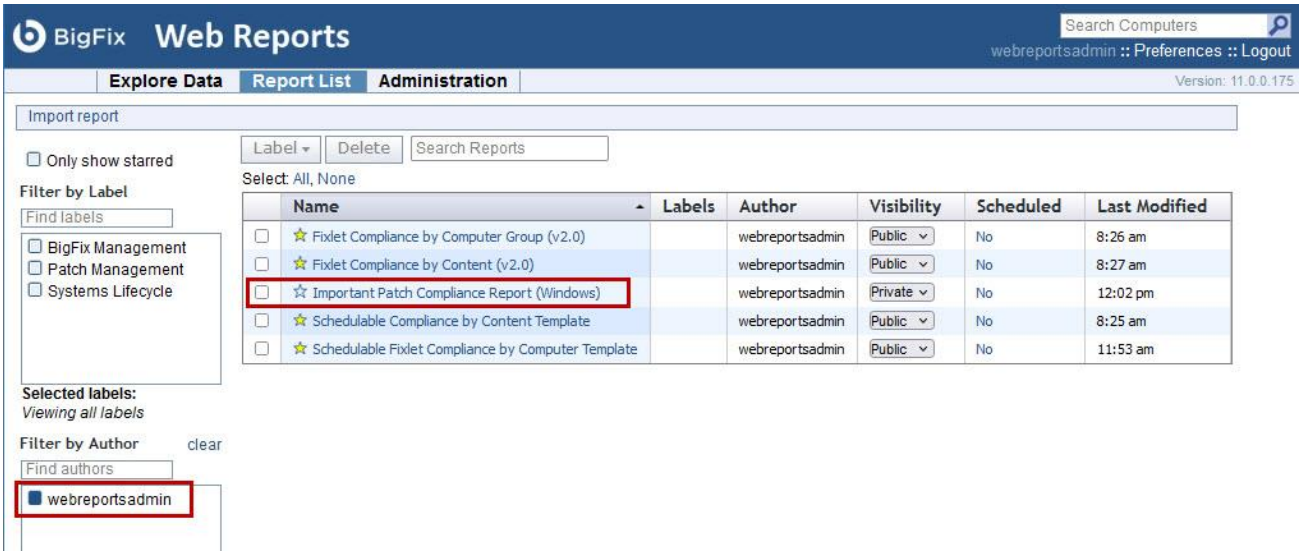
____9) Click **Save Report As** located in the upper-right portion of the report page. The Save Report window opens.

____10) Enter **Important Patch Compliance Report (Windows)** in the report name field. Click **Save**. The report is saved and the Save Report window closes.



____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.



____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.

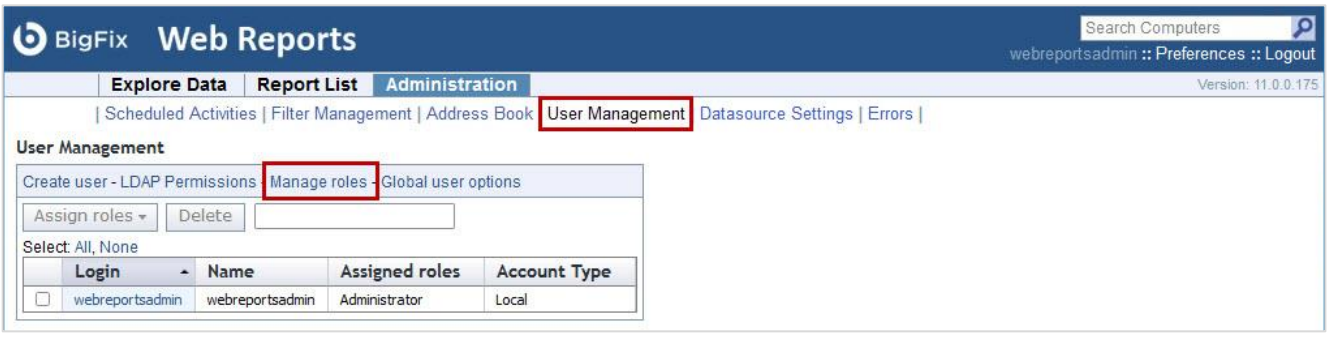
Exercise 31: Adding a Web Reports Role and User

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.



____4) Click **Create role** in the upper-left portion of the **Roles** page. The Create Role page opens.

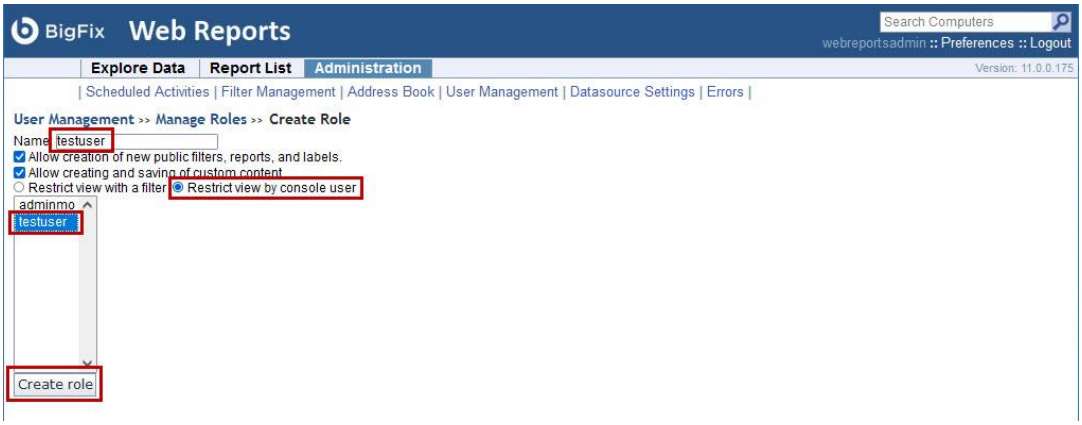
____5) Define the new role as follows:

___a) Enter **testuser** in the **Name** field.

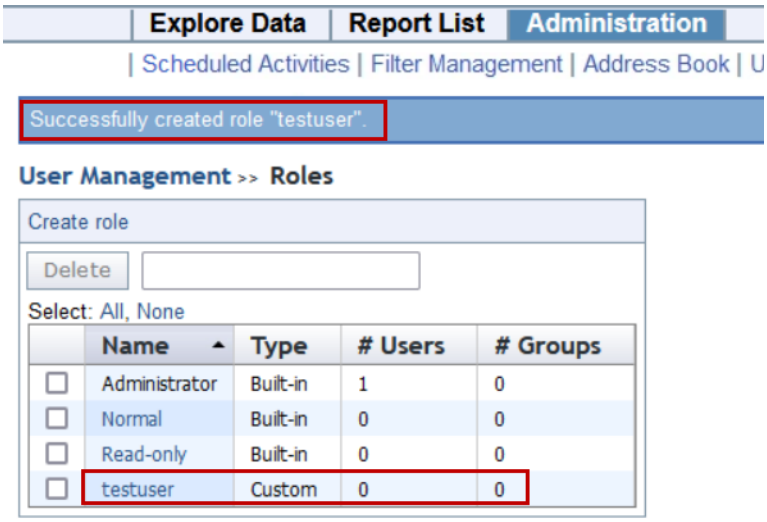
___b) Select the **Restrict view by console user** option. A list of existing Console users is displayed.

___c) Select **testuser** from the list of users.

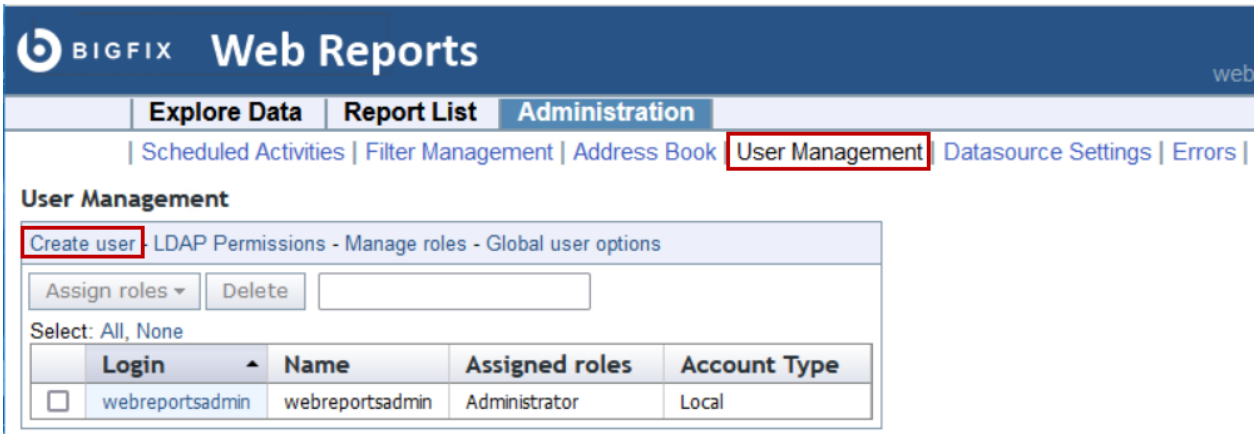
___d) Click **Create role**.



The Roles page opens and the new testuser role is now displayed in the list of existing roles.



____6) Select **User Management > Create user**. The Create User page opens



____7) Enter the following information to define the new user:

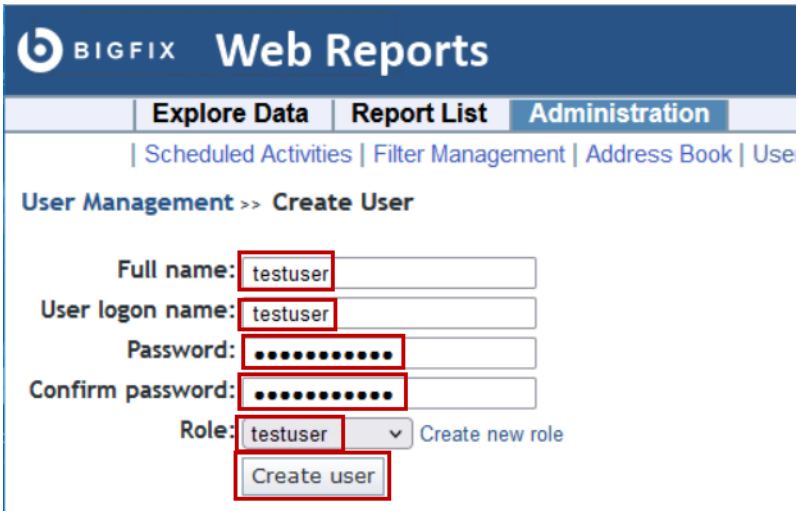
___a) Full name: **testuser**

___b) User logon name: **testuser**

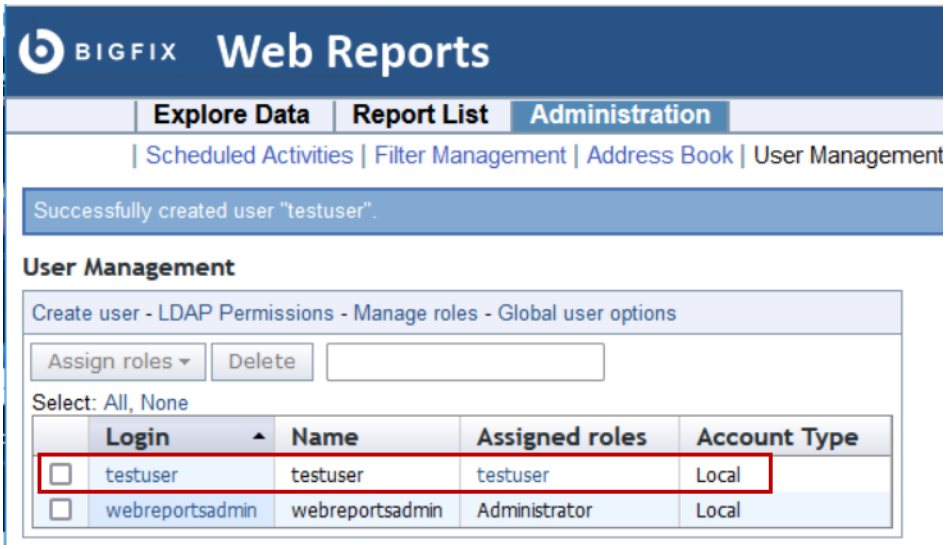
___c) Password: **B1gfixrocks**

___d) Confirm password: **B1gfixrocks**

___e) Role: Select **testuser** from the drop-down box.



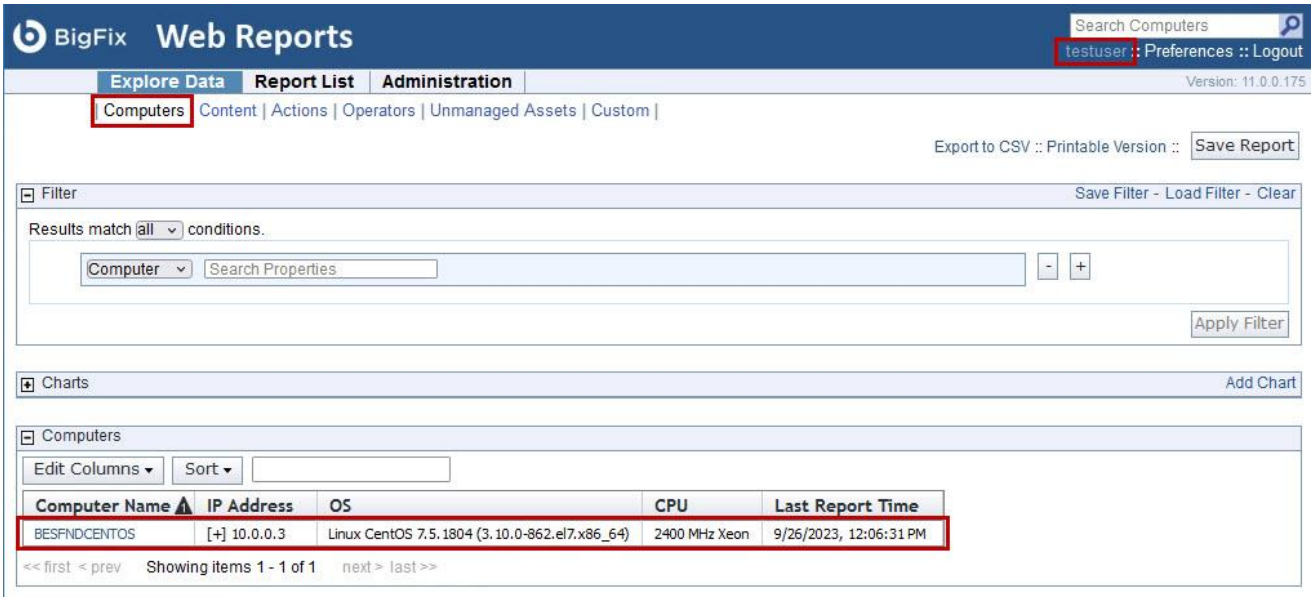
____8) Click **Create user**. The User Management page opens and testuser is now displayed in the list of defined Web Reports users.



____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.



____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.

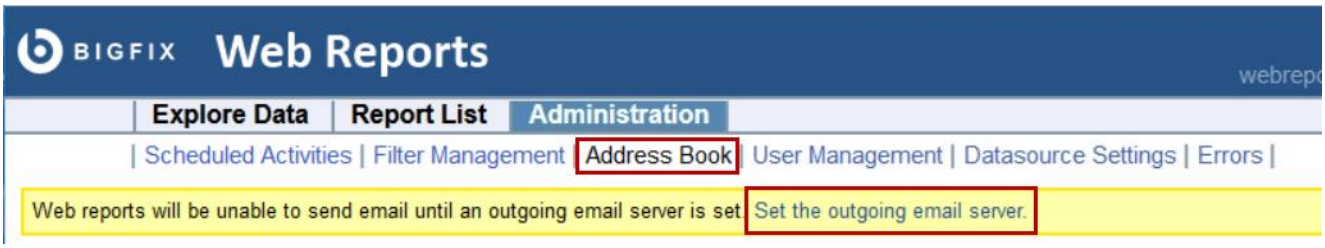
In this exercise, you configure an email server for use with Web Reports. You also create contacts that can be used when configuring scheduled activities to automatically receive emails containing reports.

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.



____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**

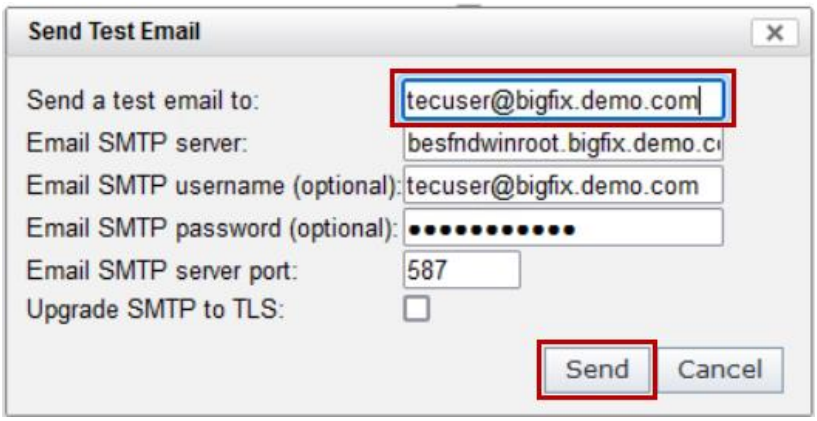
___d) Email SMTP server password (optional): **bigfixrocks**

___e) Email SMTP server port: **587**

___f) Upgrade SMTP to TLS: Verify that this option is **Unchecked**.

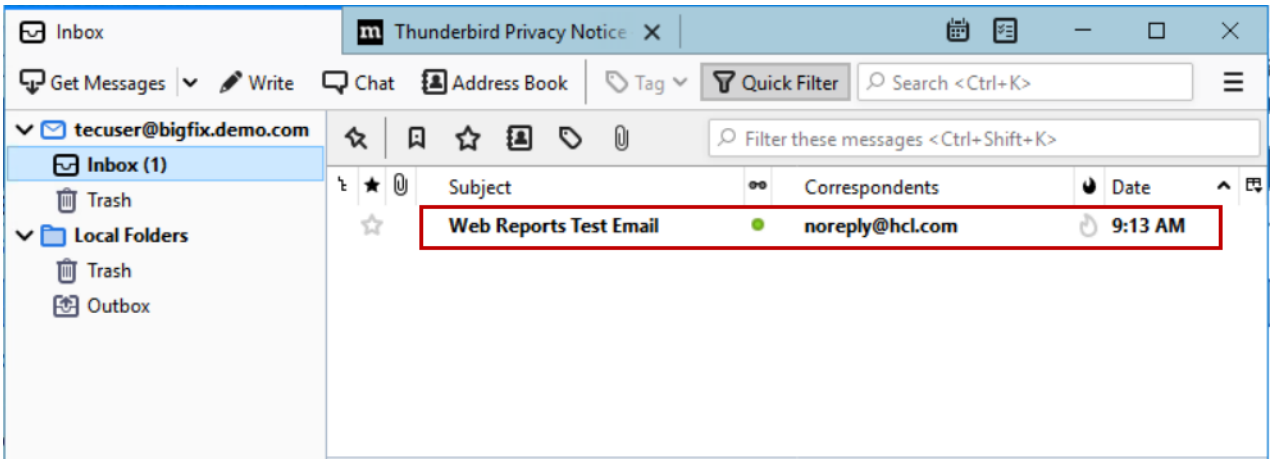
The Send Test Email window opens.

____6) Enter **tecuser@bigfix.demo.com** in the **Send a test email to** text box and click **Send**.



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.



____8) Close **Mozilla Thunderbird** and return to **Web Reports** in the **Firefox** browser.

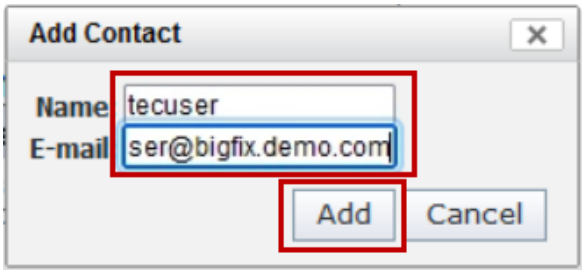
____9) Click **Save** at the bottom of the **Email Server Settings** window. The Address Book page is displayed.

____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**



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.

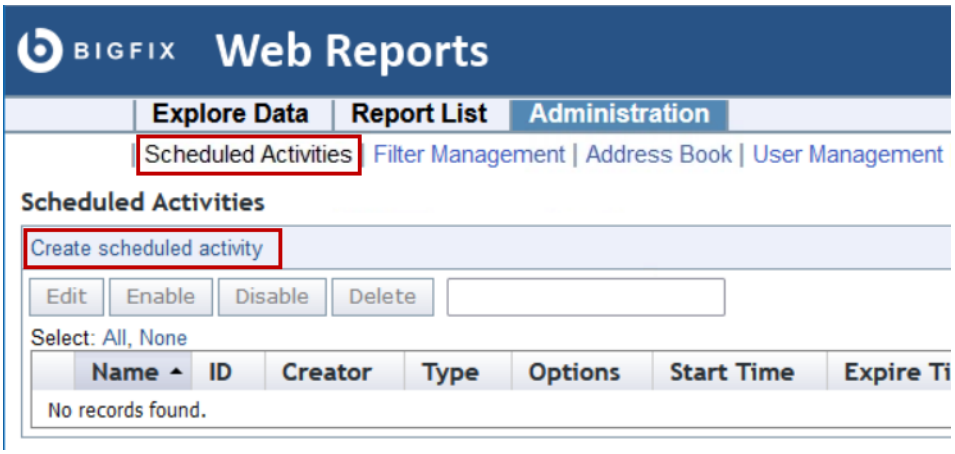
In this exercise, you create a scheduled activity to generate and email a report.

____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**.



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.

____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.

____8) In the **Activity Actions** section of the page, set the following options:

___a) Place a **check** beside the **Email** option.

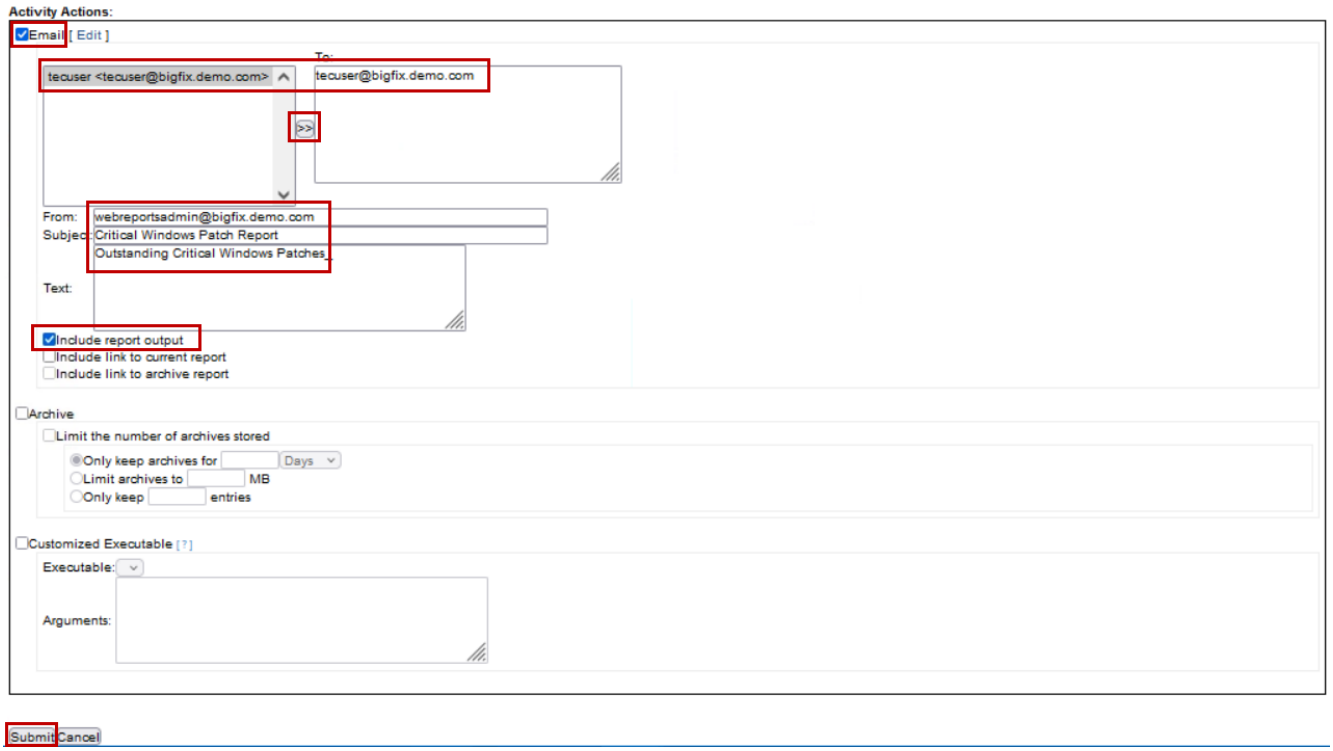
___b) Select **tecuser** in the first box then click the **>>** to move that user to the **To** box.

___c) Enter **webreportsadmin@bigfix.demo.com** in the **From** field.

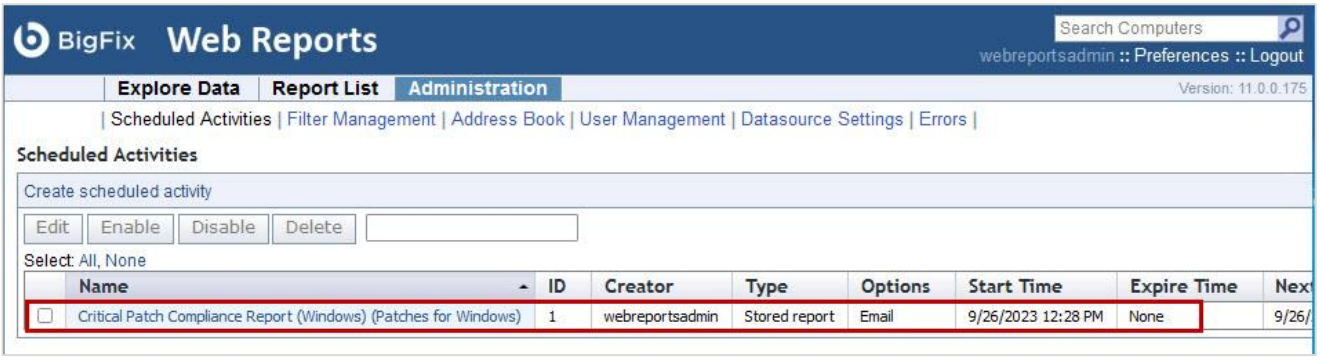
___d) Enter **Critical Windows Patch Report** in the **Subject** field.

___e) Enter **Outstanding Critical Windows Patches** in the **Text** field.

___f) Verify that the **Include report output** option is selected.



____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.



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

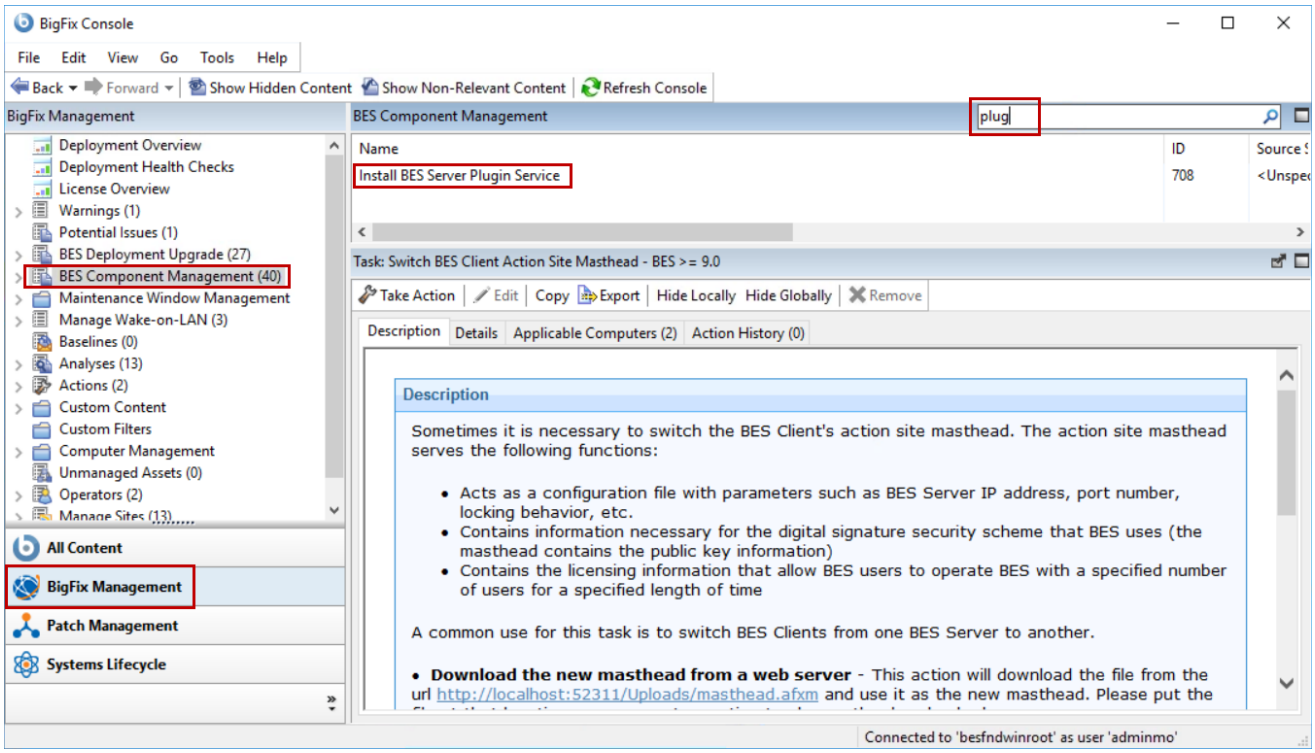
In this exercise, you take the required steps to setup and configure Asset Discovery.

____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.

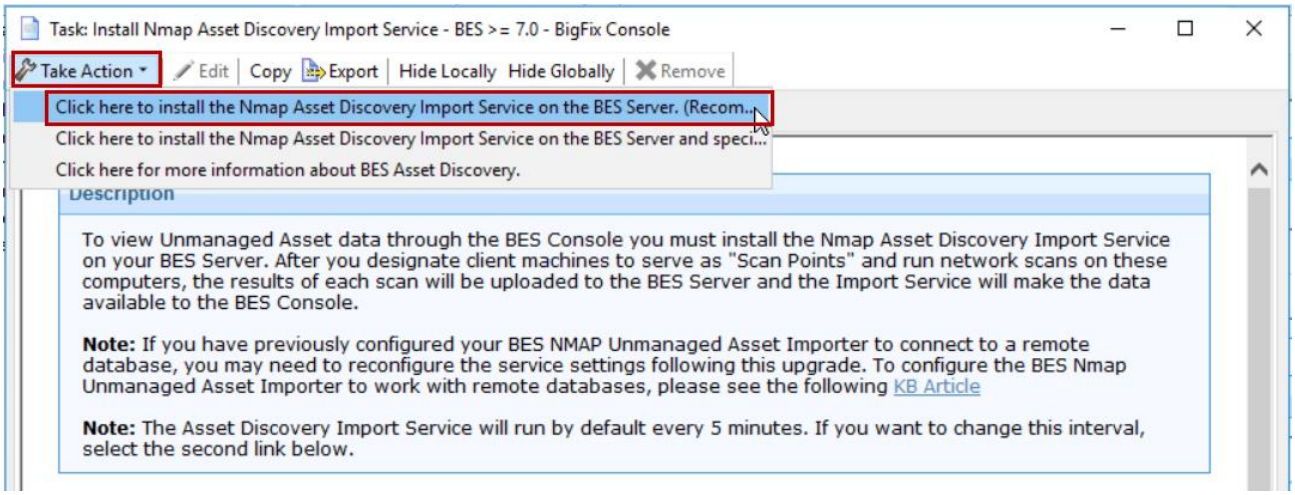
____9) Monitor the status of the action and wait for it to change to **Completed** before continuing.

____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.



____14) Select the **Target** tab and then select **BESFNDWINROOT** from the list of applicable target computers.

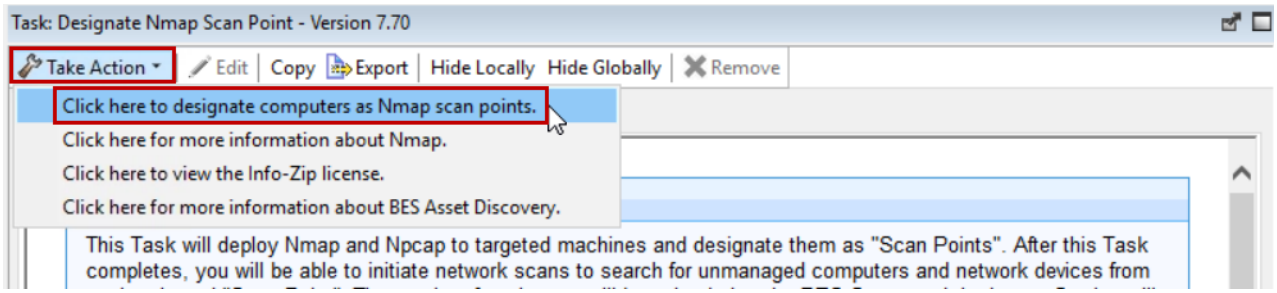
____15) Click **OK** to initiate the action.

____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.



____20) Select the **Target** tab. While holding down the **Ctrl** key, select both **BESFNDWIN10** and **BESFNDWINROOT** from the list of available targets.

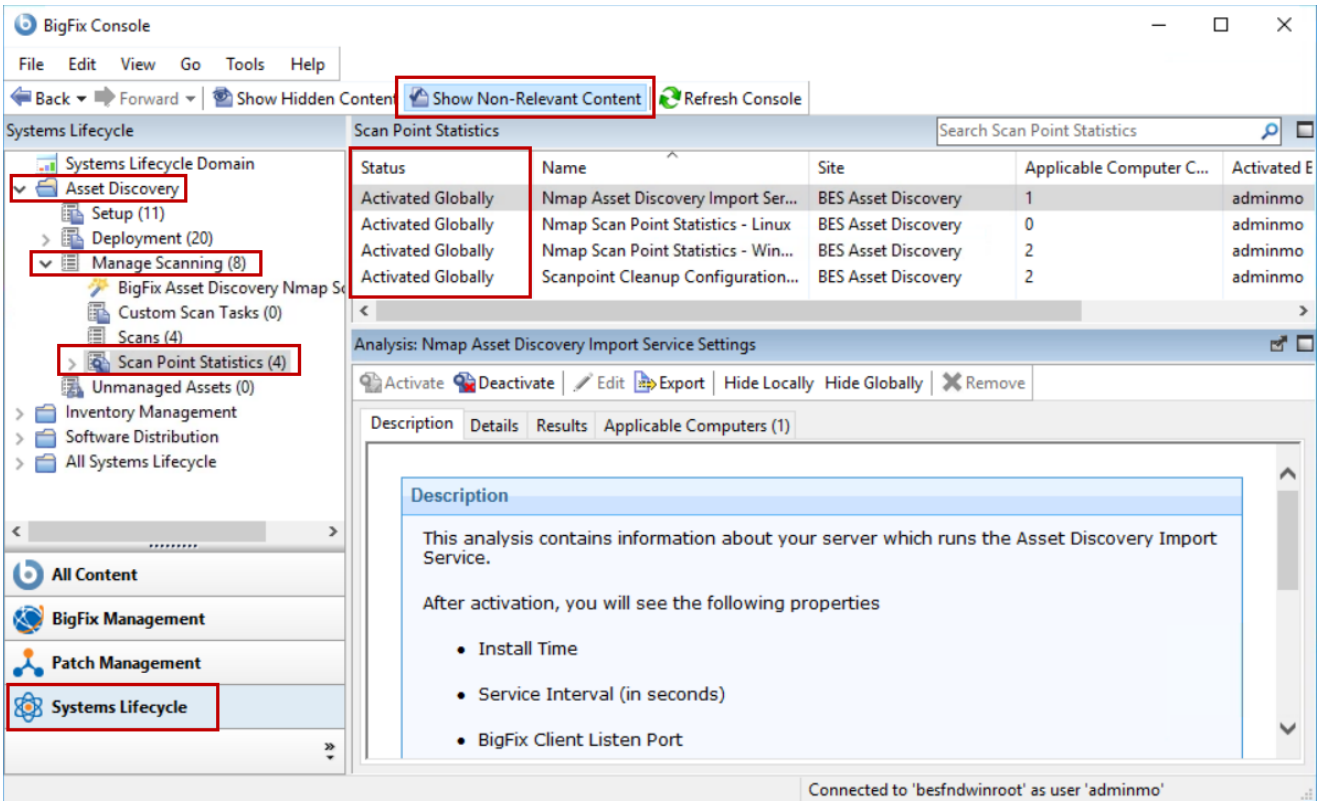
____21) Click **OK** to initiate the action.

____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**.



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**.

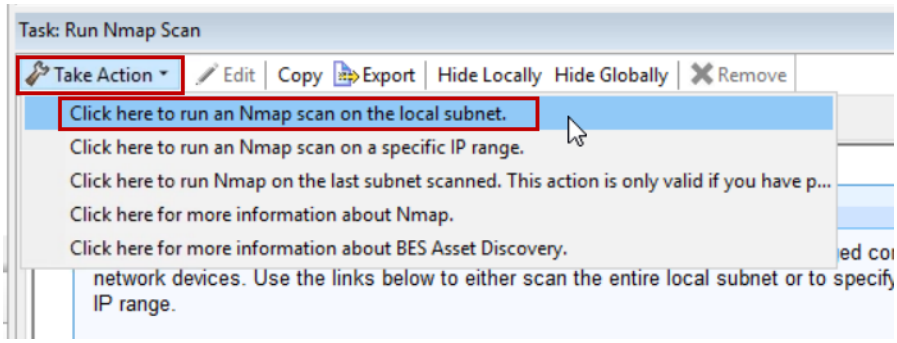
____2) Click the **Systems Lifecycle** domain in the lower-left portion of **Console**. The navigation pane above updates to display only the content that is associated with the Systems Lifecycle domain.

____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.



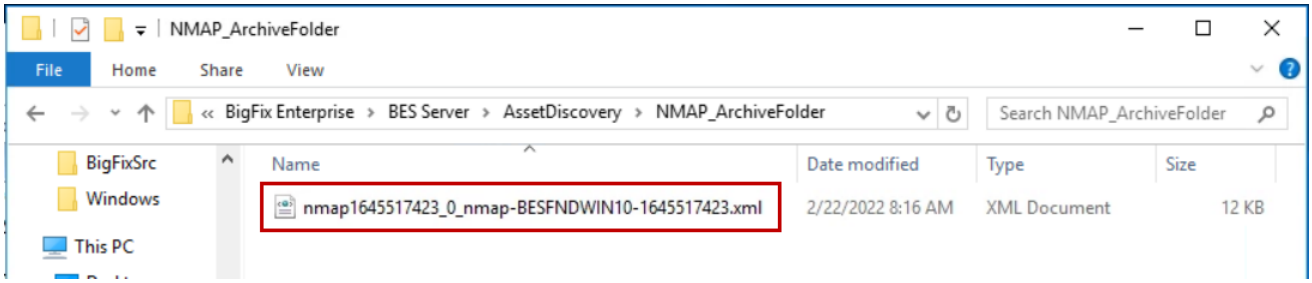
____6) Click the **Target** tab and select **BESFNDWIN10** from the list of available targets.

____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.

This completes the exercise.

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**.

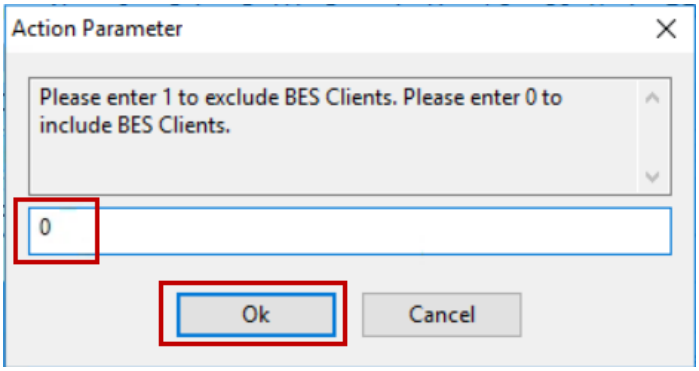
____2) Click the **Systems Lifecycle** domain in the lower-left portion of **Console**. The navigation pane above updates to display only the content that is associated with the BigFix Management domain.

____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**.



____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.

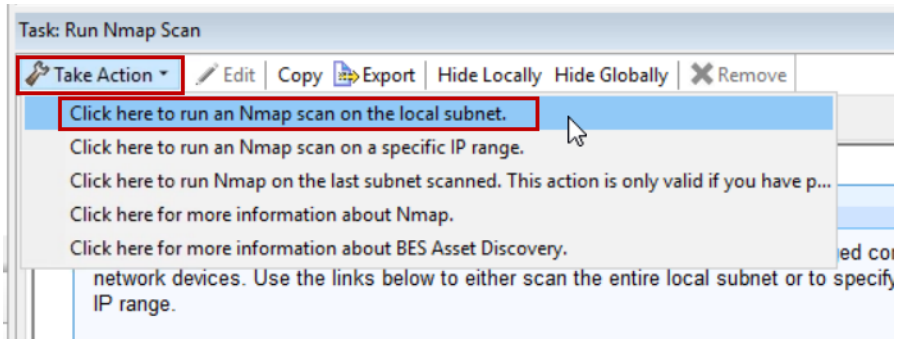
____1) Switch to the **BESFNDWINROOT** virtual machine and return to the BigFix **Console**.

____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.



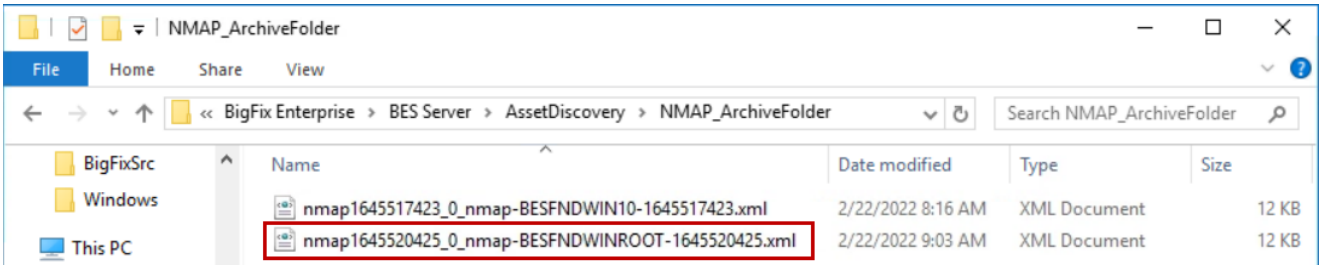
____6) Click the **Target** tab and select **BESFNDWINROOT** from the list of available targets.

____7) Click **OK** to initiate the action.

____8) Monitor the status of the action until it changes to **Completed**.

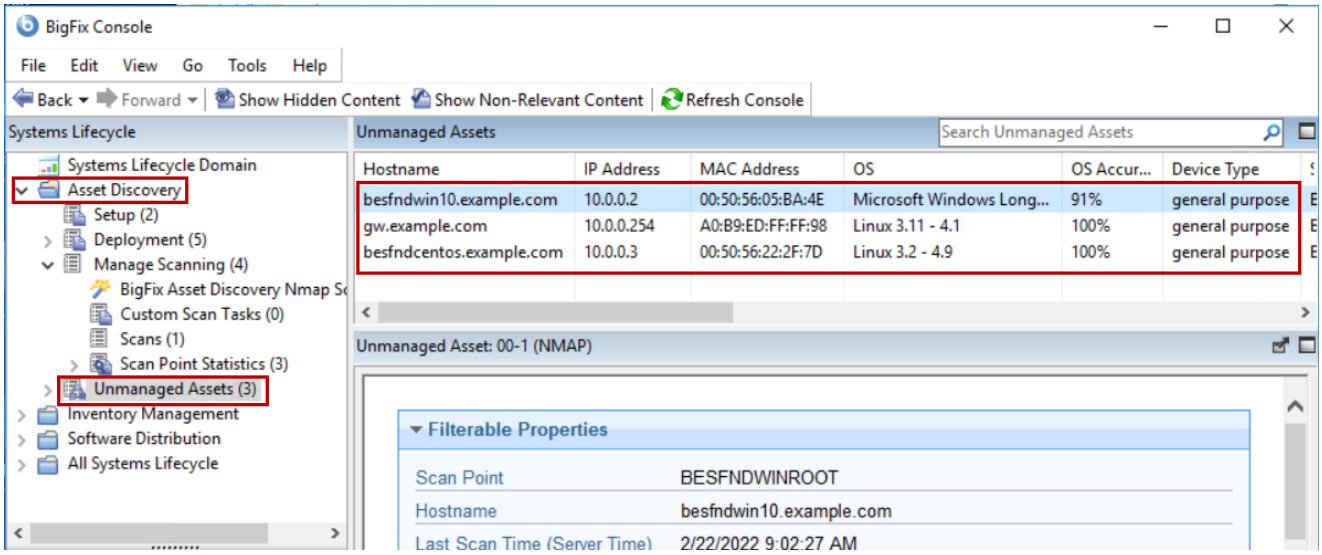
Tip: It will take several minutes for the scan to complete. Once the scan is completed an .XML of the scan results is created on the BigFix Root server. This file is imported by the Asset Discovery Import service which runs every 5 minutes by default. It might take several minutes once the scan is complete 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.



This completes the exercise.

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.

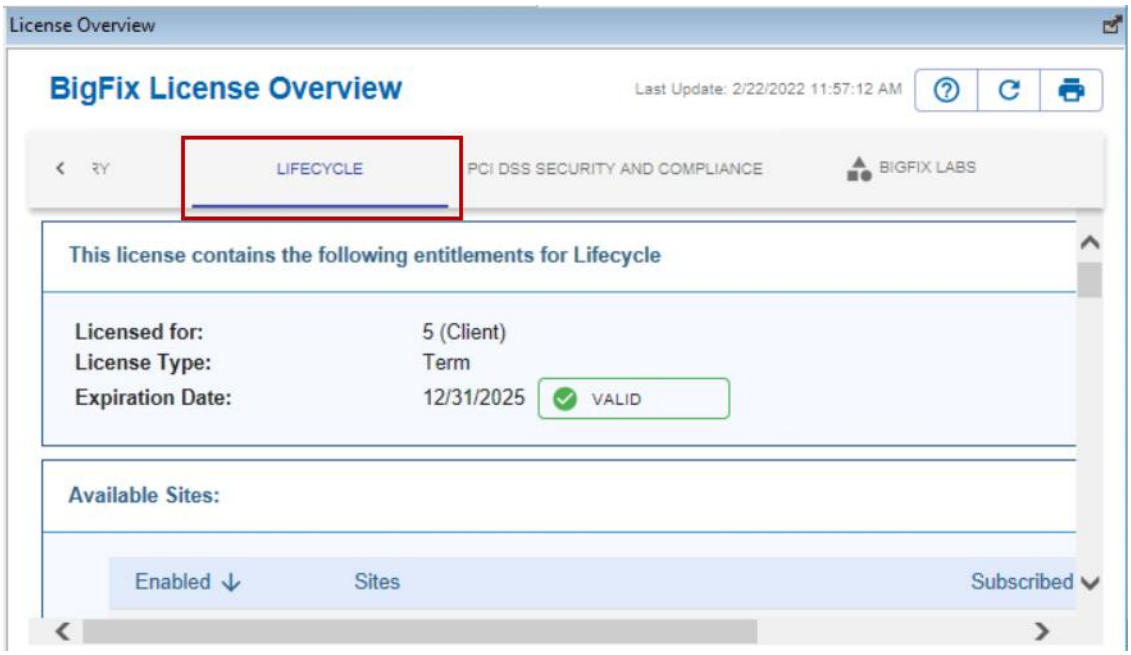
In this lab exercise, you confirm that the Software Distribution external site has been enabled, and that All Computers have been subscribed to the site.

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

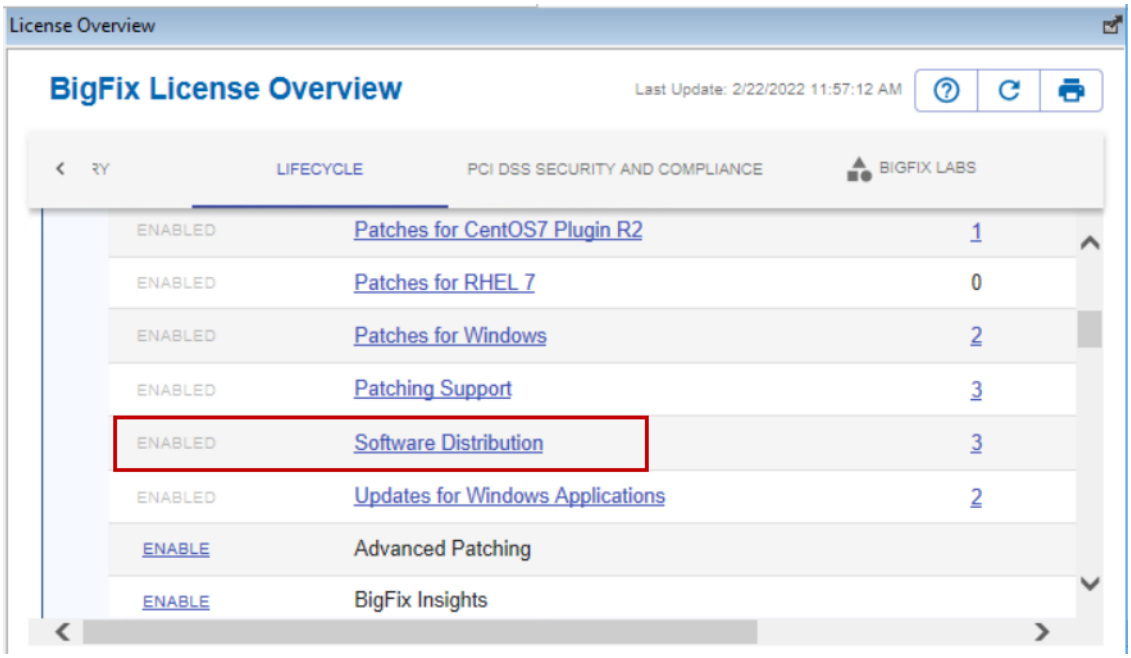
____2) Click the **BigFix Management** domain in the lower-left portion of **Console**. The navigation pane above updates to display only the content that is associated with the BigFix Management domain.

____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.

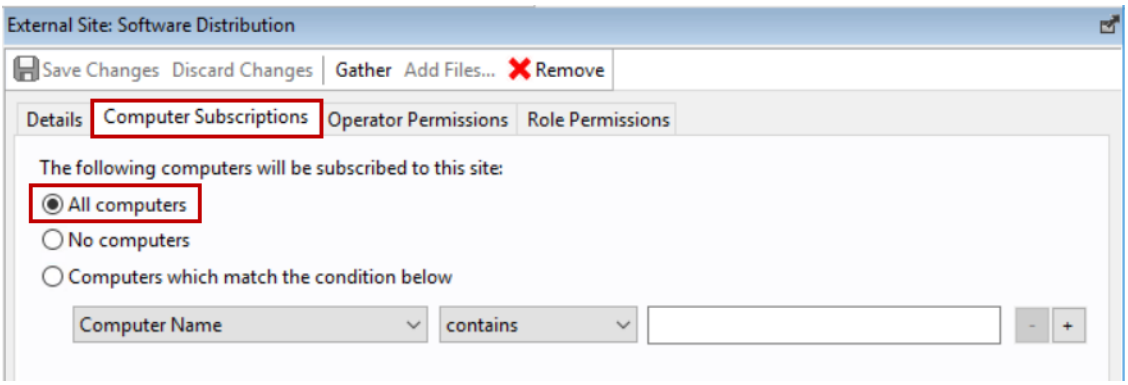


____5) Scroll down in the dashboard and located the **Software Distribution** site. Verify that the site is **Enabled**. If the site has not yet been enabled, click the **ENABLE** link to the left of the site name.



____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.



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.

This completes the exercise.

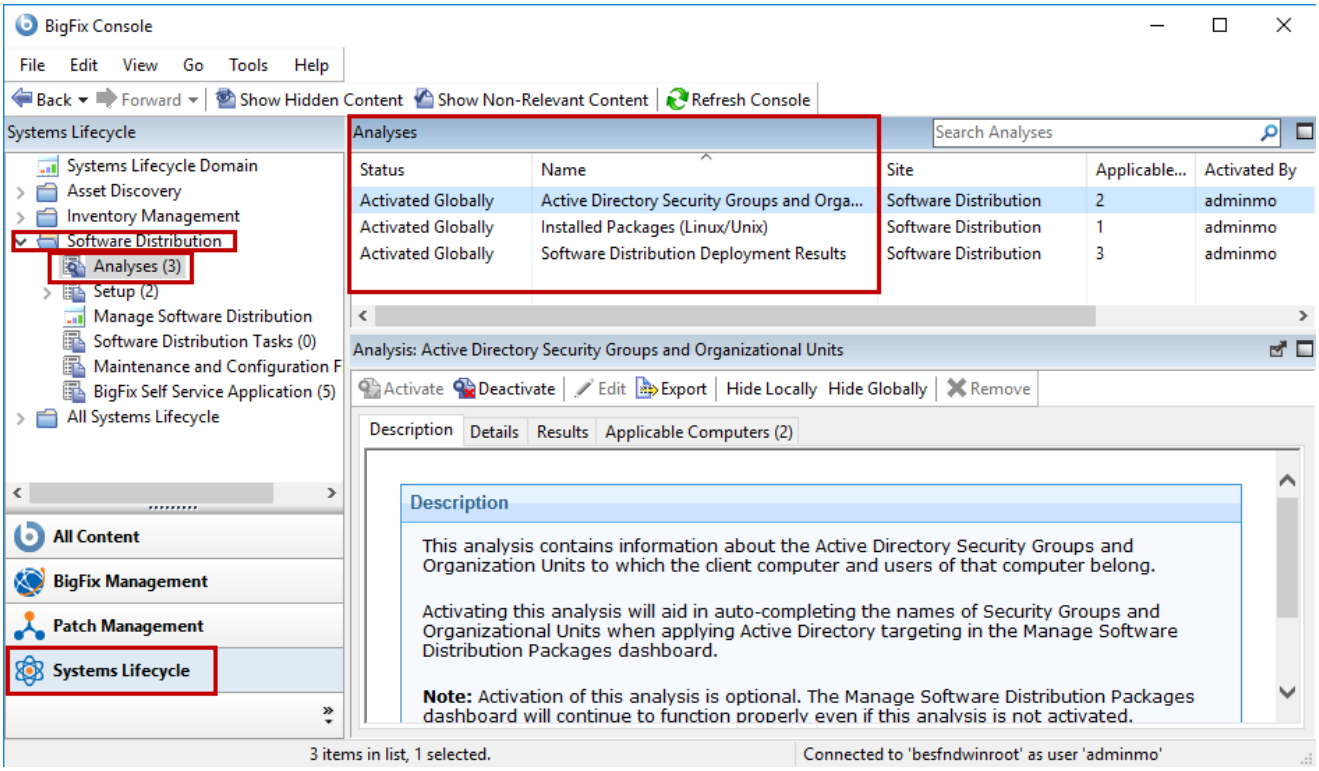
Exercise 39 – Activating the Software Distribution Analyses

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.



____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.

This completes the exercise.

Exercise 40 – Registering the Download Plug-in for Software Distribution

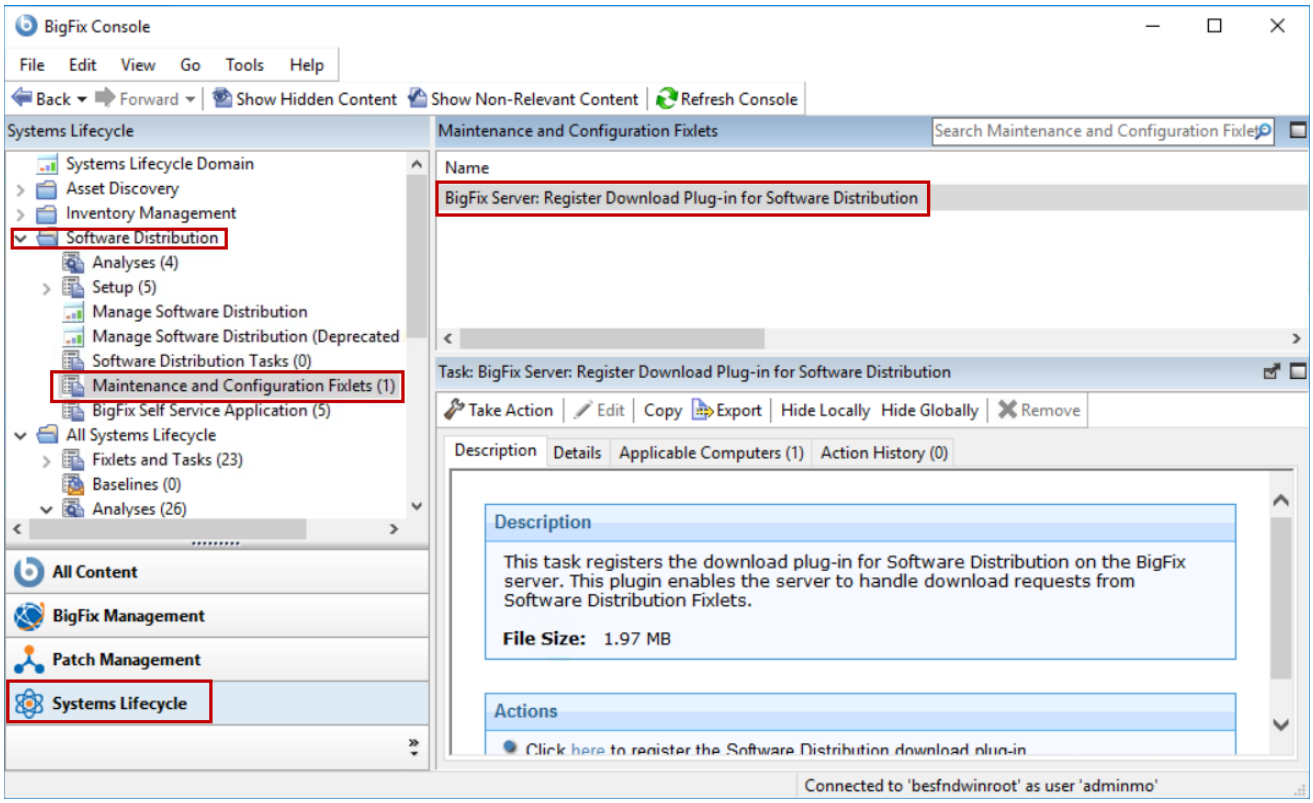
The Manage Software Distribution Packages dashboard is a tool that is used to manage Software Distribution packages in the environment. Before using the dashboard, you must first register the download plug-in for Software Distribution. This plugin manages download requests from Software Distribution 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.



____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.

This completes the exercise.

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.

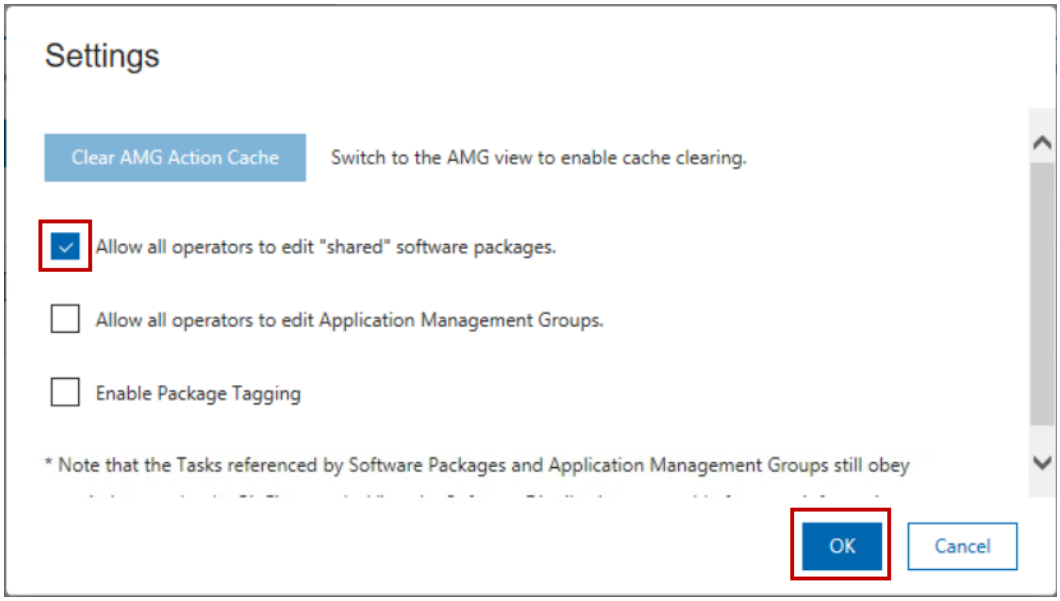
____1) Switch to the **BESFNDWINROOT** virtual machine and return to the BigFix **Console**.

____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**.



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.

This completes the exercise.

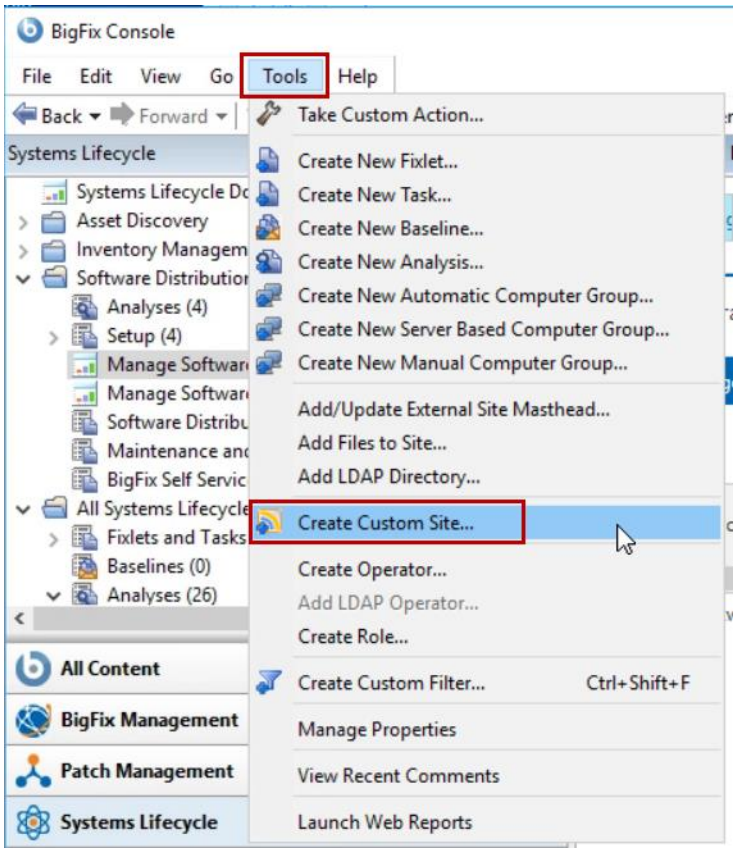
Exercise 42 – Creating a Custom Site for Software Distribution

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.

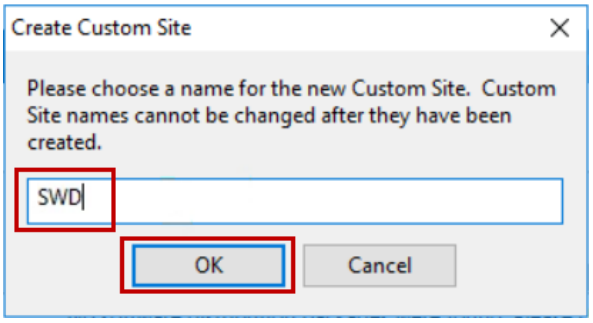
____1) Switch to the **BESFNDWINROOT** virtual machine and return to the BigFix **Console**.

____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**.



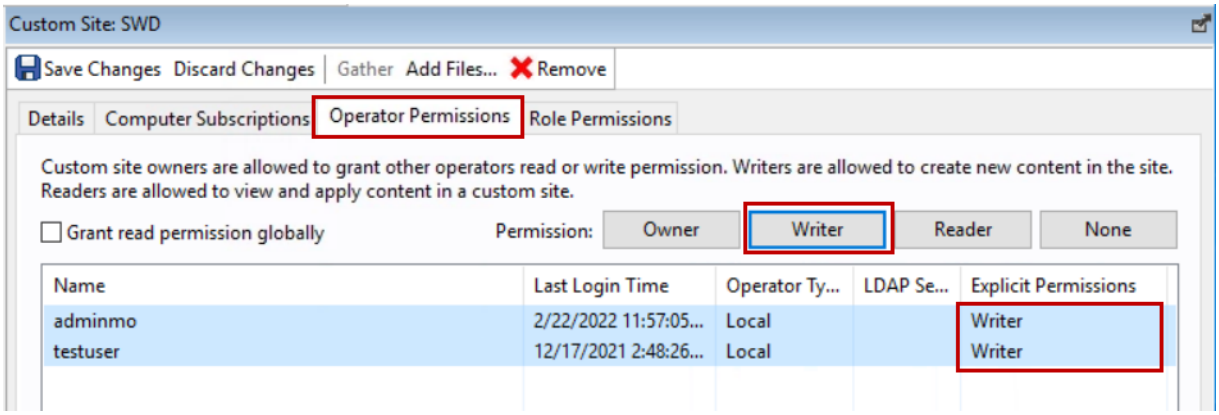
The Custom Site: SWD pane opens.

____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.



____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.

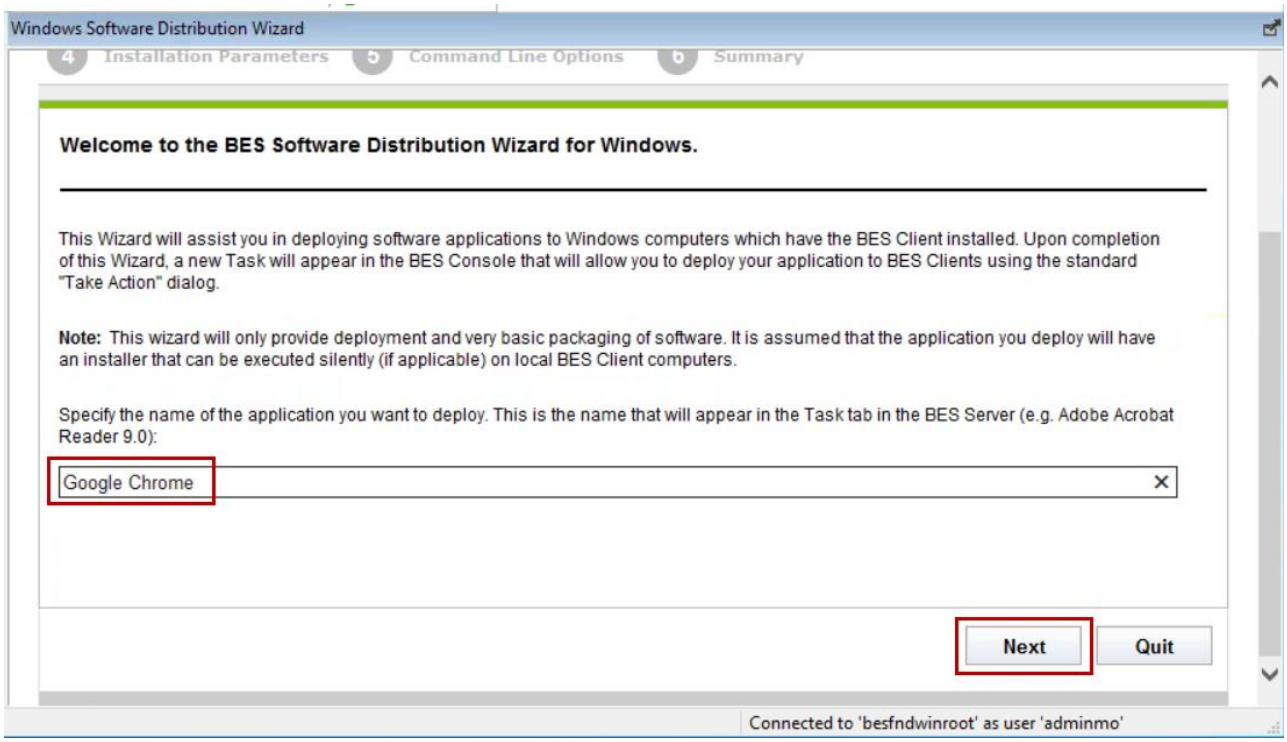
In this exercise, you use the Windows Software Distribution Wizard to create a Task to install Google Chrome. You then Take Action on that task to deploy Chrome to a managed endpoint.

____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.

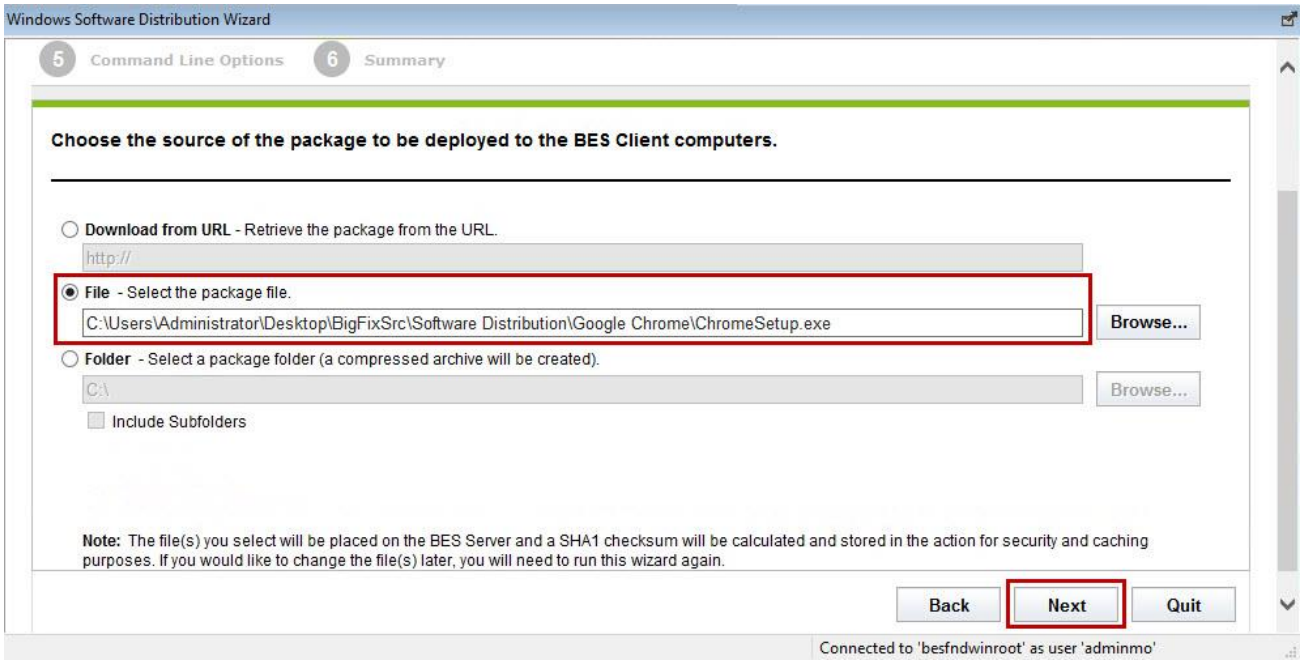
____4) Replace **<Application Name>** with **Google Chrome**. Scroll to the bottom of the wizard and click **Next**.



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



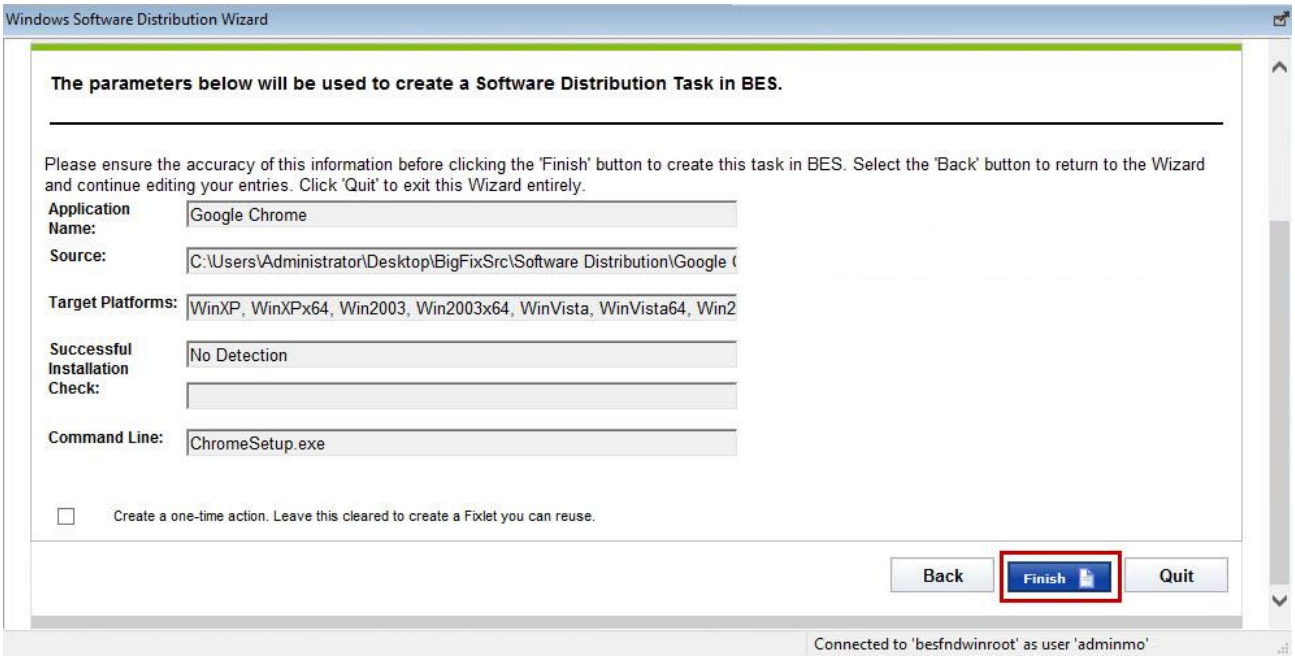
____6) Click **Next**. The Platforms pane is displayed.

____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.

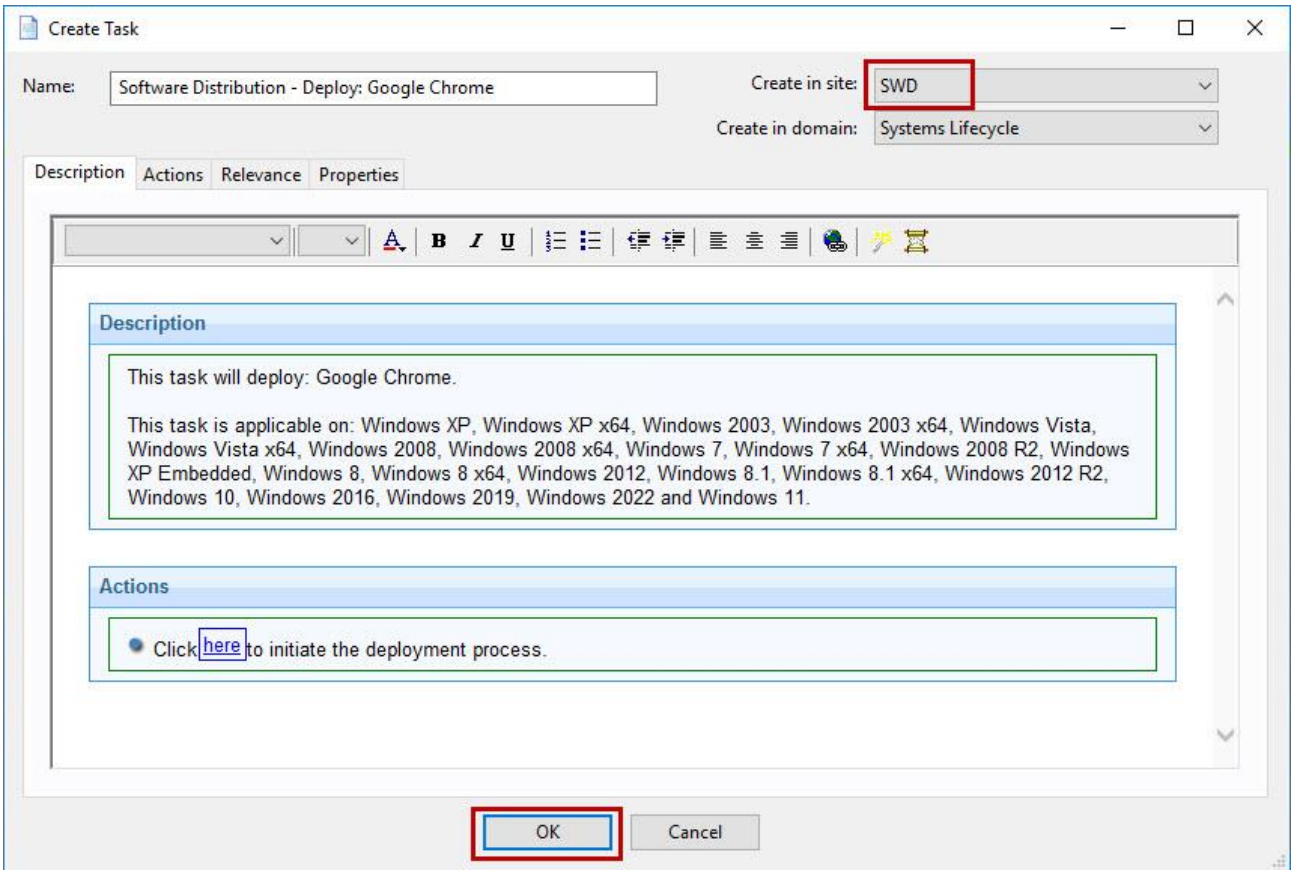
____10) Click **Finish**. If the **Security Warning** window is displayed, click **Continue**.



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**.



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**.

This completes the exercise.

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:

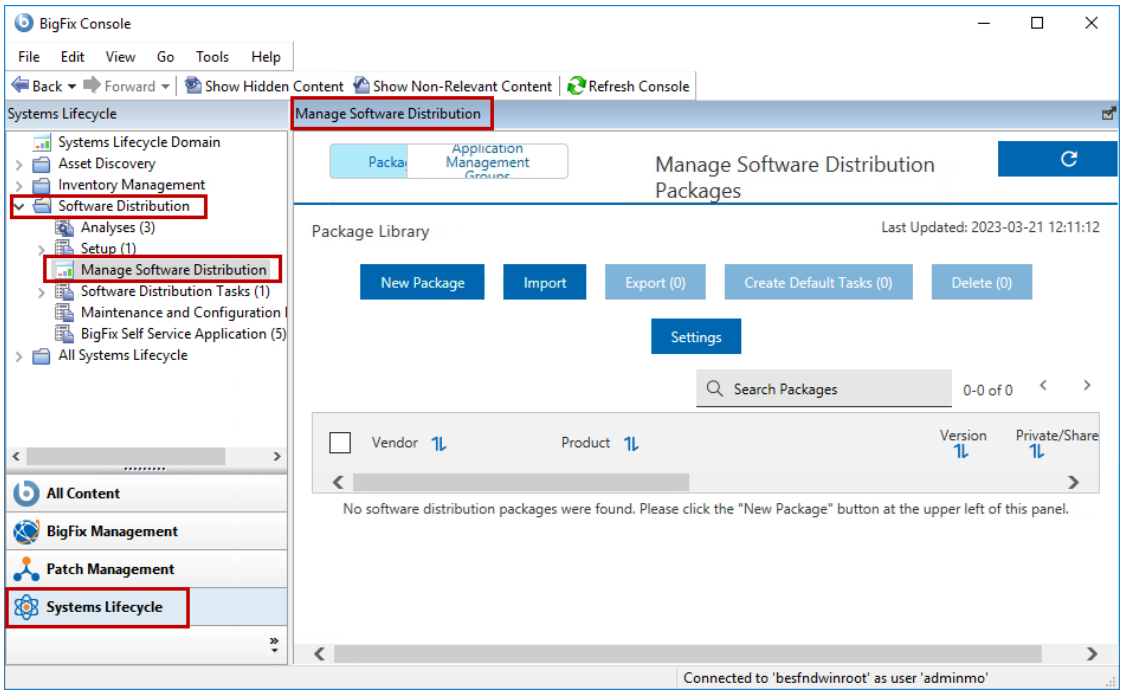
- Create packages.
- Create default tasks associated with new packages.
- Add files to existing packages.
- Create and manage associated Fixlets.
- Add tags to software packages.
- Add pre-installation and post-installation commands
- Importing and exporting packages
- Set individual task logs.
- Create 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.



____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.

____6) Click **Confirm**. The New Package pane closes, and the package details are saved to the dashboard.

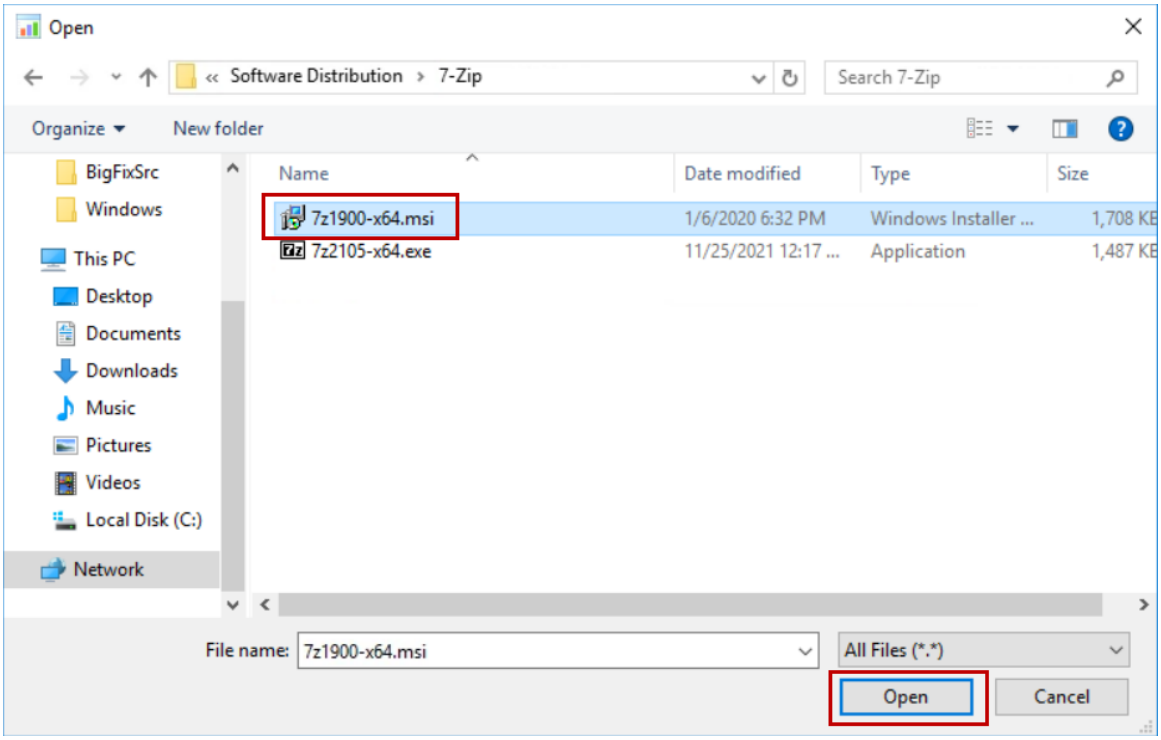
____7) Click on the row for the **7-Zip** package. The package details are highlighted in the dashboard, then click **Add Files** in the lower-left portion of the dashboard. The Add Files to Package pane opens.

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.

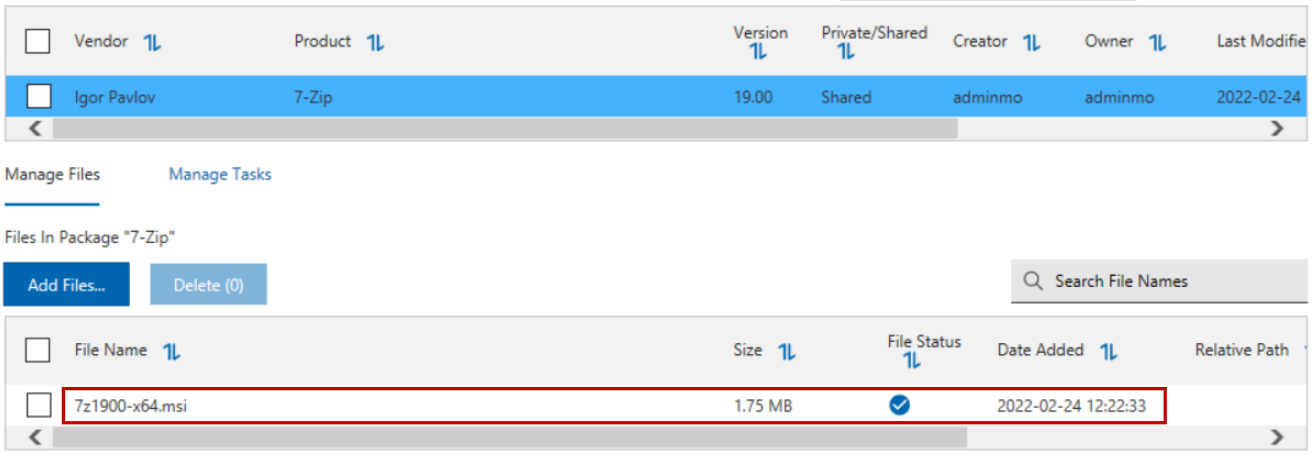
____9) Navigate to the following directory and select the **7x1900-x64.msi** file, then click **Open**.

C:\Users\Administrator\Desktop\BigFixSrc\Software Distribution\7-Zip

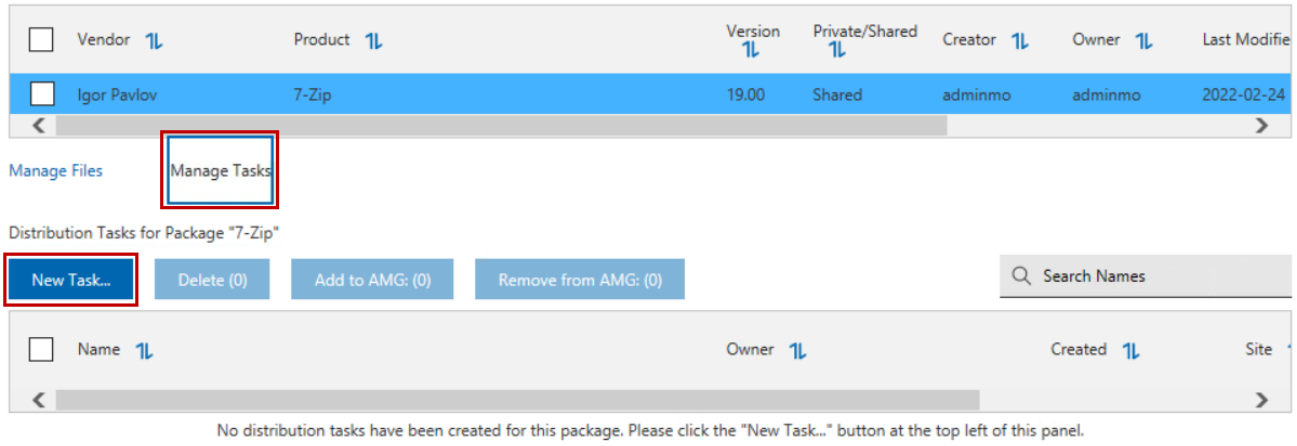


The file explorer window closes, and you are returned to the Add Files to Package pane.

____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.

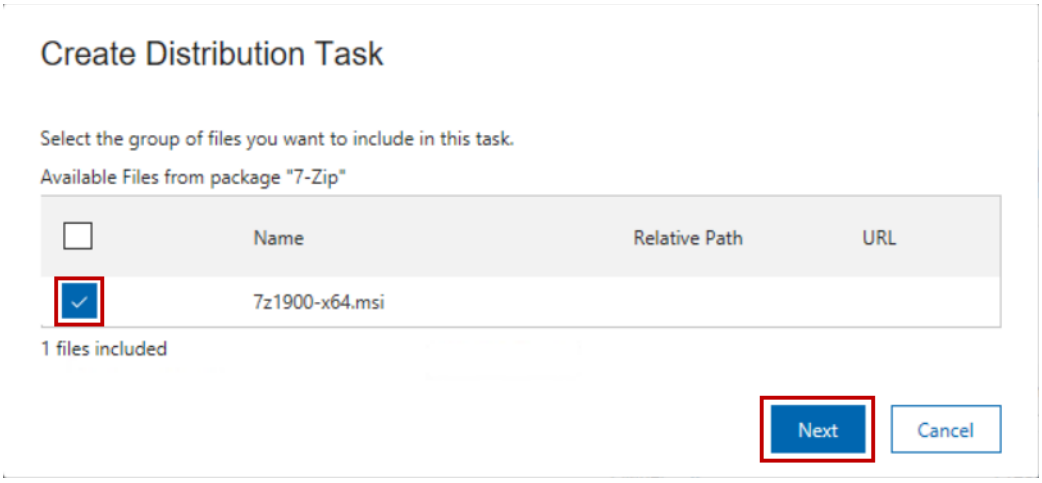


____11) Click the **Manage Tasks** tab in lower-left portion of the dashboard, then click **New Task**.



The Create Distribution Task pane opens.

____12) Place a **check** beside the package file **7z1900-x64.msi** and click **Next**.



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.

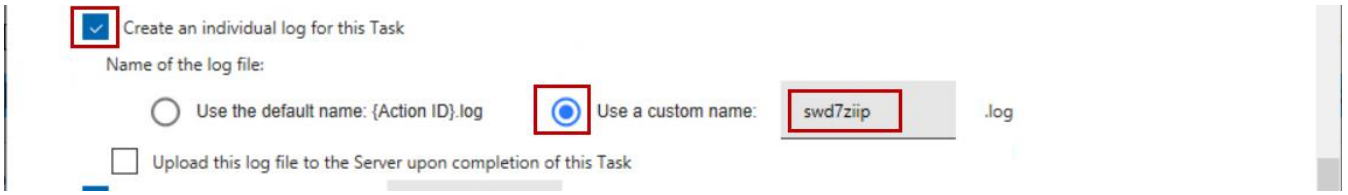
____13) Expand the **Show Advanced Options** node. Review the various options that can be set on this page.

- 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

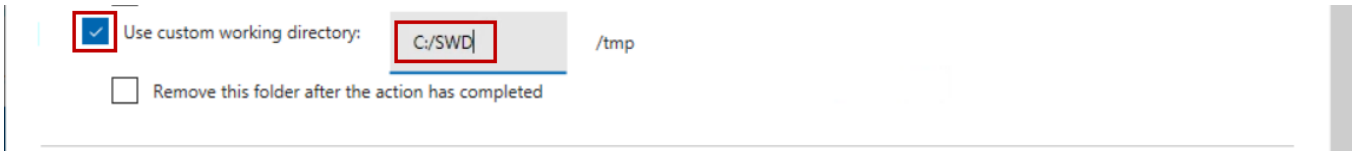
a custom name. The default name for the log file corresponds to the Action ID with a .log extension. You also have the option to leave the log file on the target or upload it to the server after the task execution is complete.

- 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.

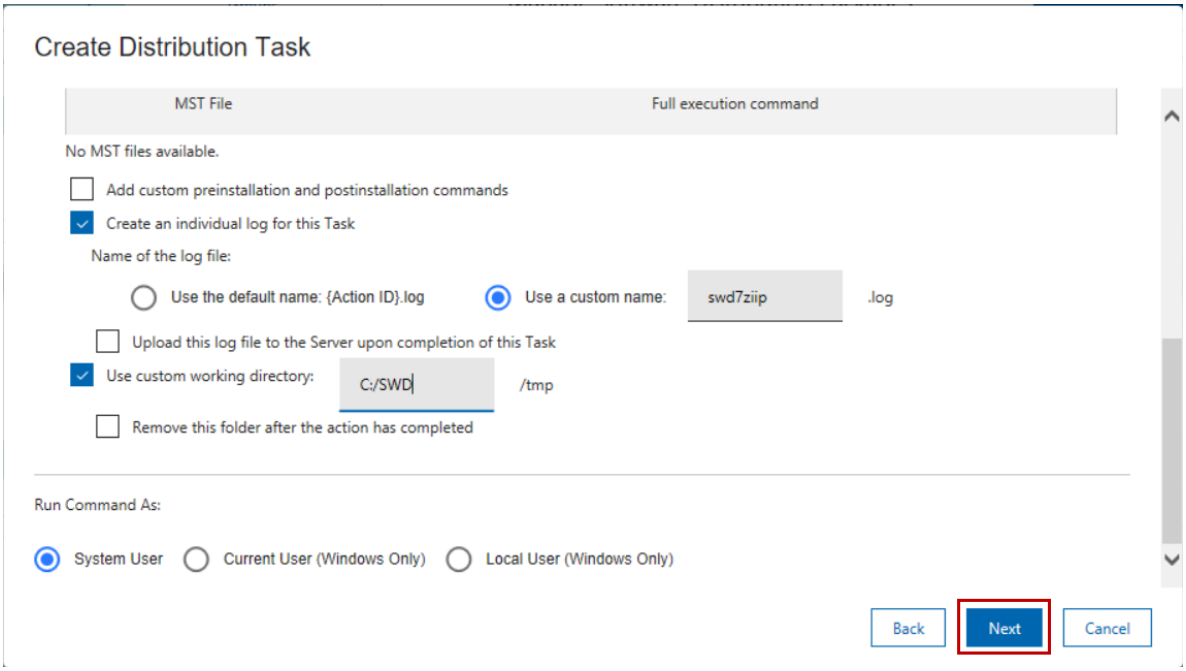
____14) Select the **Create an individual log for this Task** option. Select the **Use a custom name** option and enter **swd7zip** in the name field.



____15) Select the **Use custom working directory** option and enter **C:/SWD** in the text field.



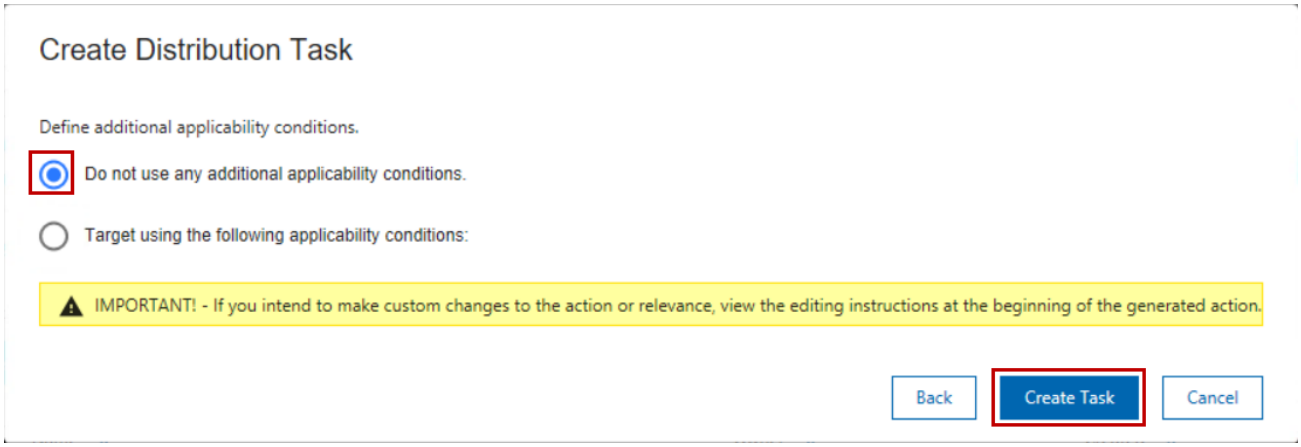
____16) Click **Next**.



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.

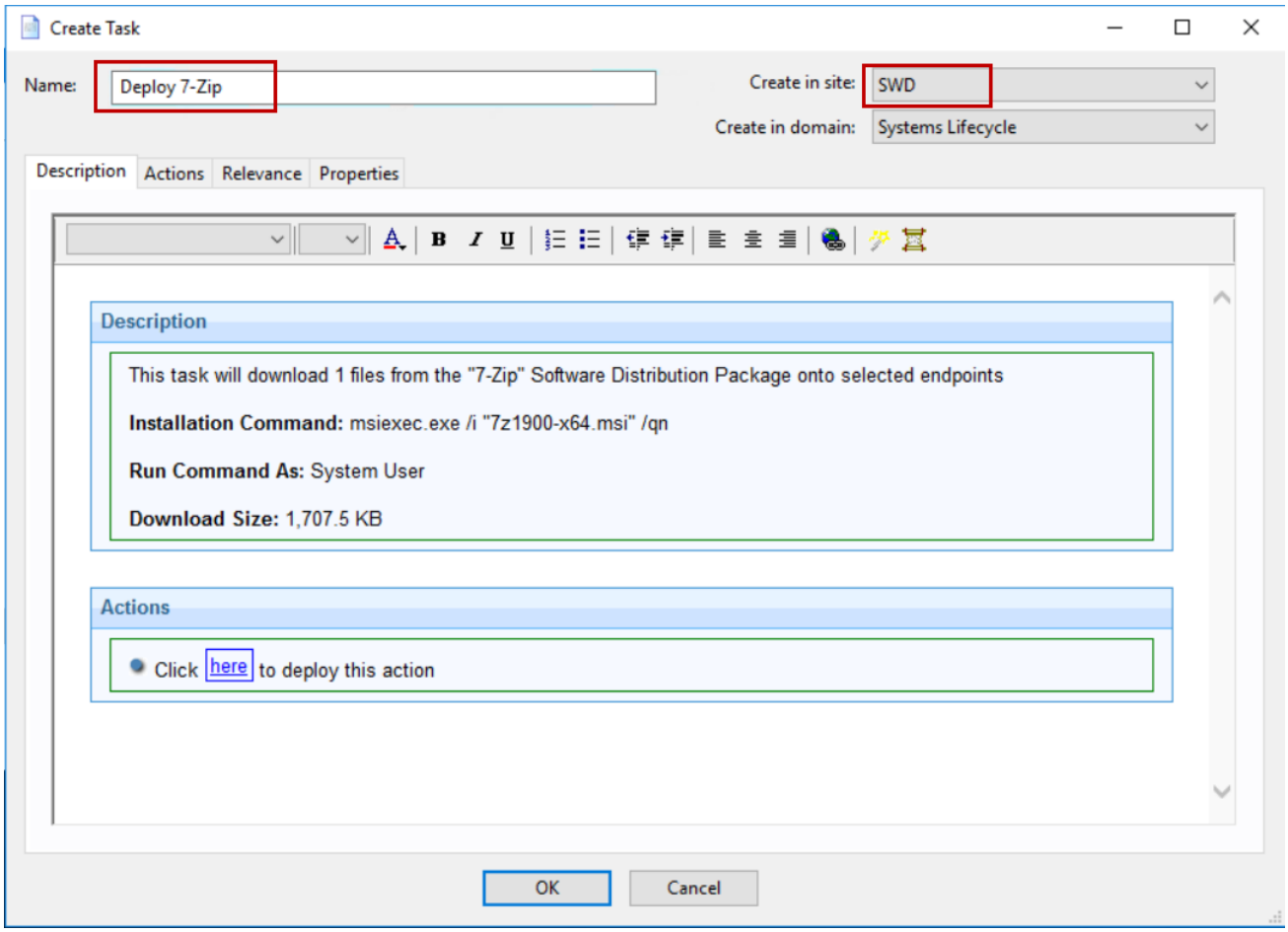
____17) Leave the default **Do not use any additional applicability conditions** option selected and click **Create Task**. If the **Security Warning** window opens, click **Continue**.



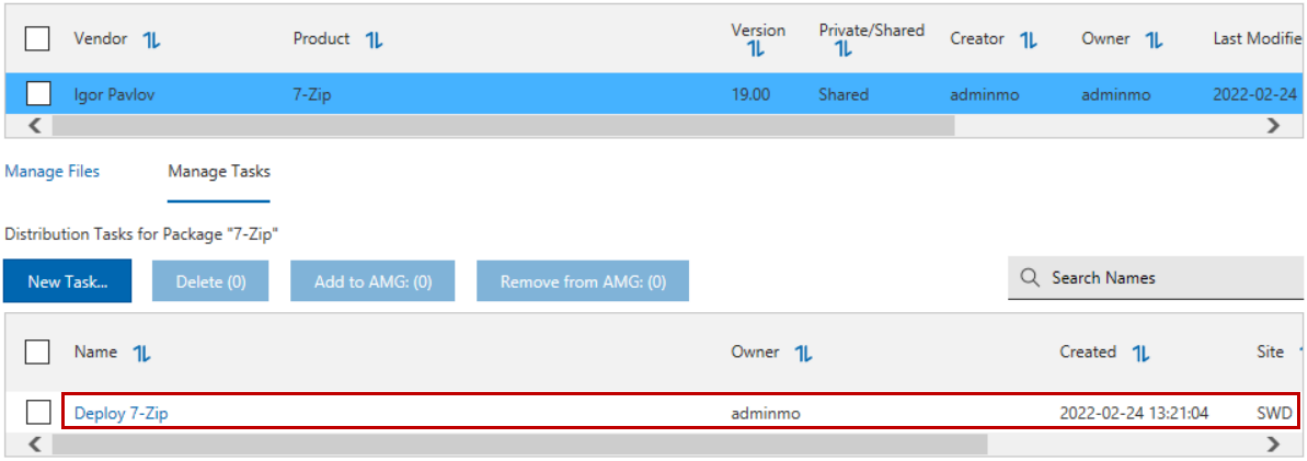
The Create Task window opens.

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 upper-right portion of the **Create Task** window.



____19) Click **OK**. The Deploy 7-Zip task is shown in the Manage Software Distribution dashboard.



____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.

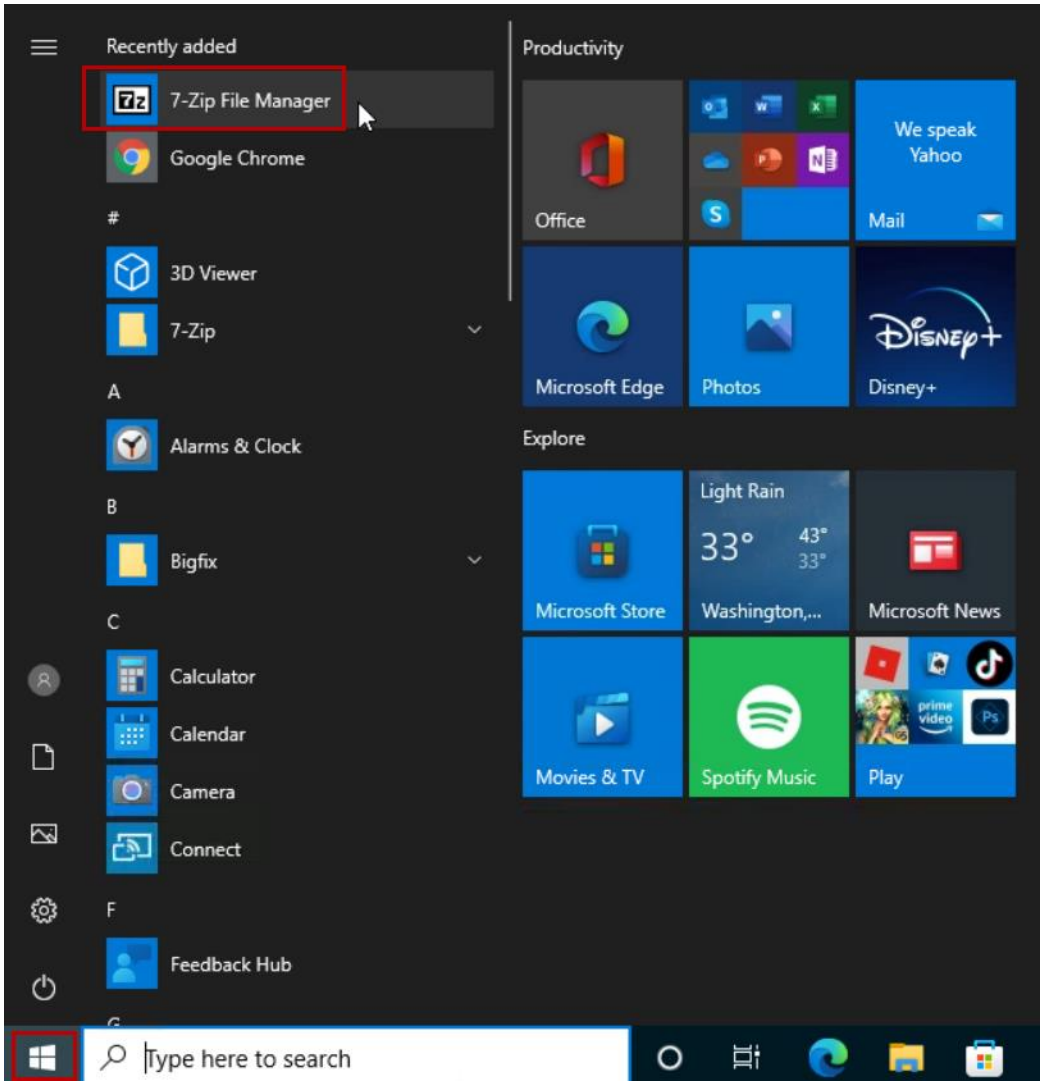
____25) Click the **Target** tab and select **BESFNDWIN10** from the list of available computers.

____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**

The WebUI Overview page opens.

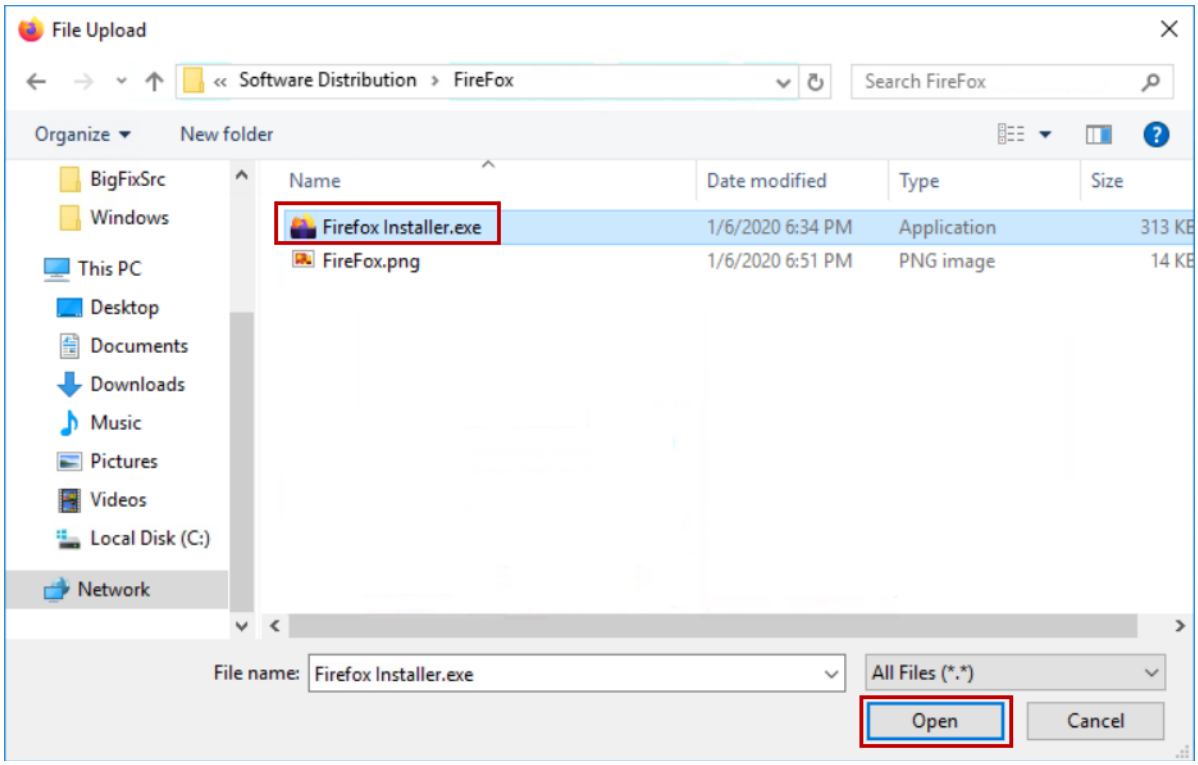
____5) Select **Apps** -> **Software.** The Software page opens.

____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.

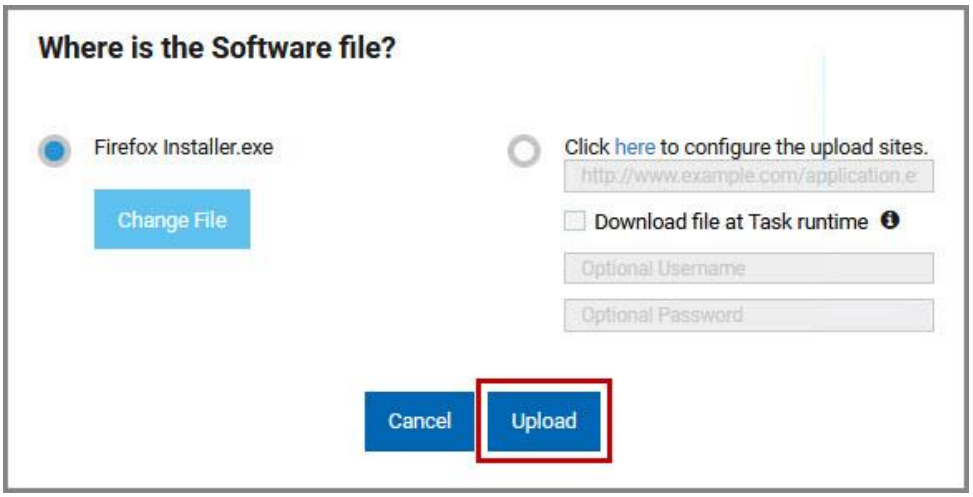
____8) Select the **Firefox Installer.exe** file in the following directory then click **Open**.:

C:\Users\Administrator\Desktop\BigFixSrc\Software Distribution\FireFox



You are returned to the Where is the Software File? pane

____9) Click **Upload**.

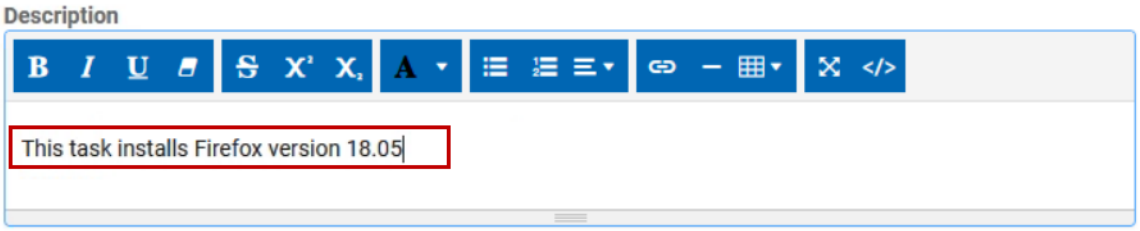


The Add Software page opens and many of the fields are populated based on the information that was extracted from the selected file.

____10) Enter **Web Browser** in the **Category** field and click **Enter**. The new category is added to the page.

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.

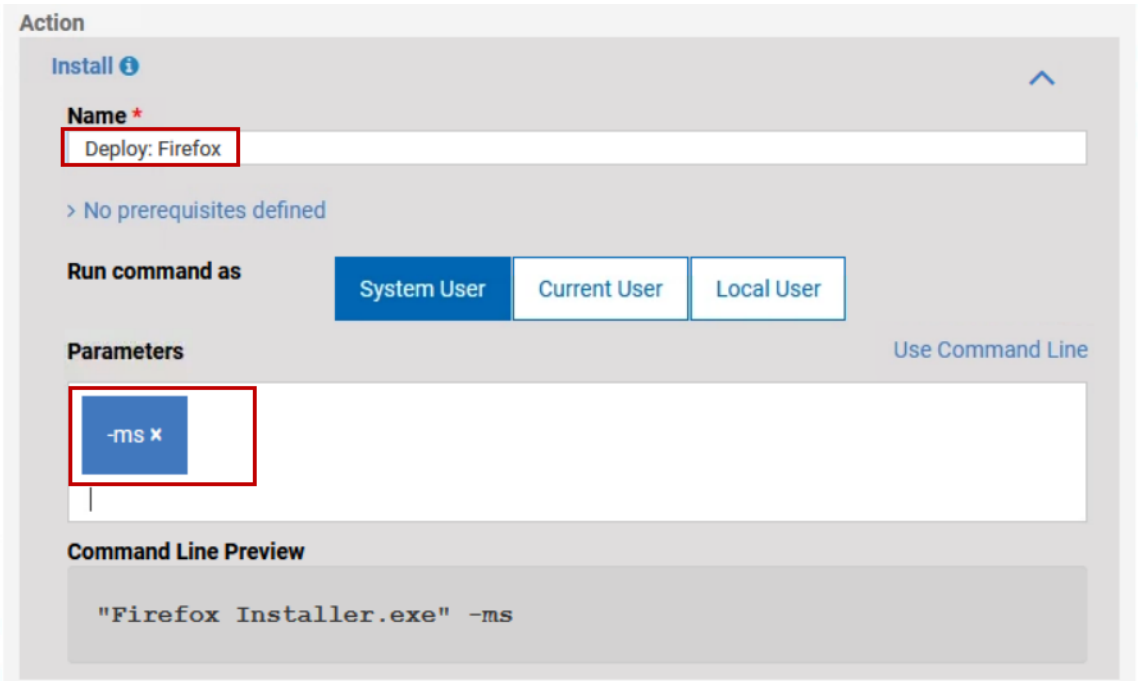


____12) Scroll down to the Configuration 1 section on the Add Software page and make the following changes:

___a) Change the string **Configuration 1** in the **Name** field to **Deploy Firefox**

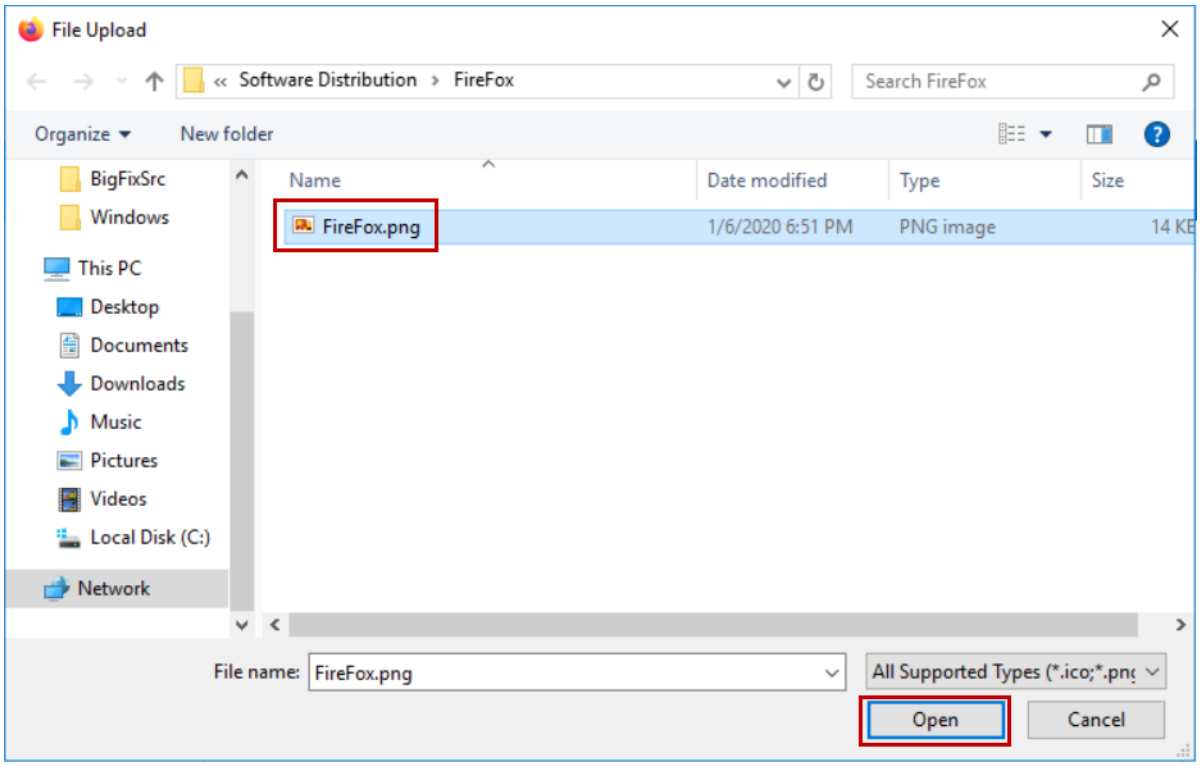
___b) Select **SWD** from the **Site** drop-down box.

___c) Expand the arrow in the **Action** section and change the name to **Deploy: Firefox**. Type **-ms** in the **Parameters** field and click **Enter**.

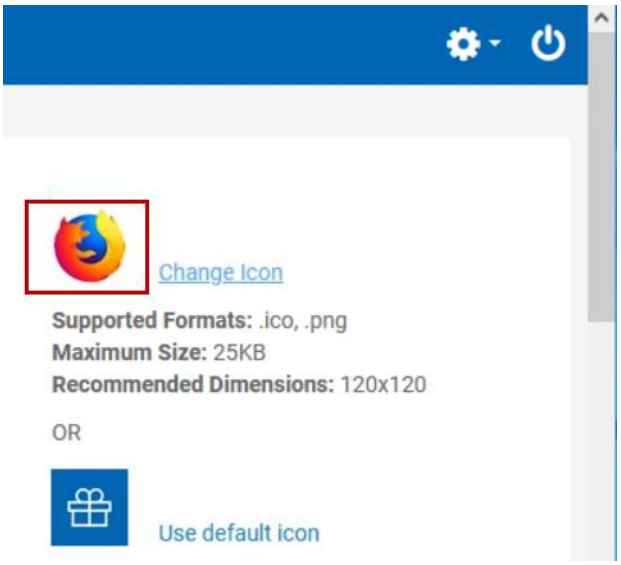


____13) Scroll to the top of the **Add Software** page and click **Change Icon**. The File Upload window opens.

____14) Select the **FireFox.png** file and click **Open**.

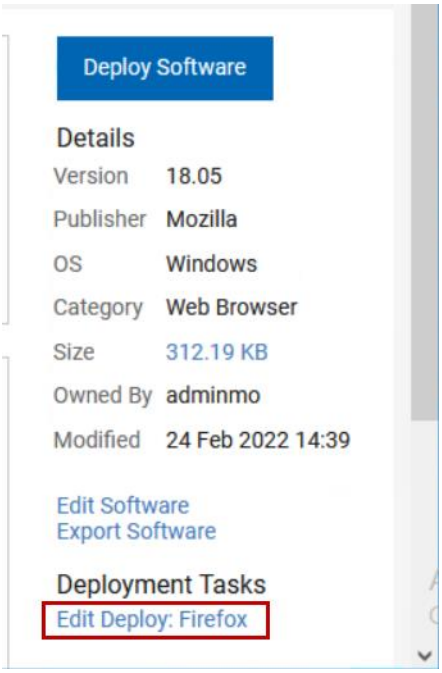


The File Upload window closes and the Firefox icon is shown in place of the default package icon.



____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.



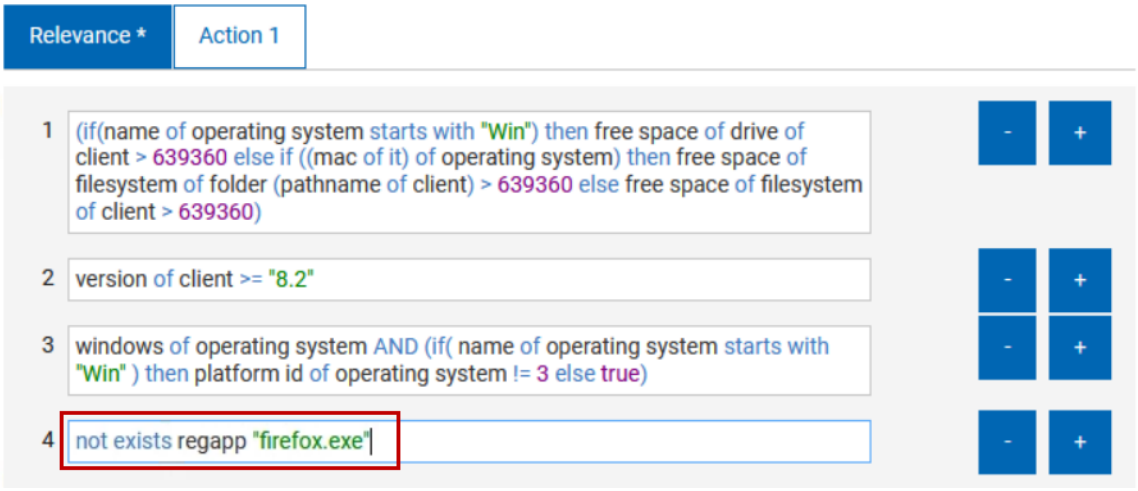
The Edit Task page opens.

____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:

```
not exists regapp "firefox.exe"
```



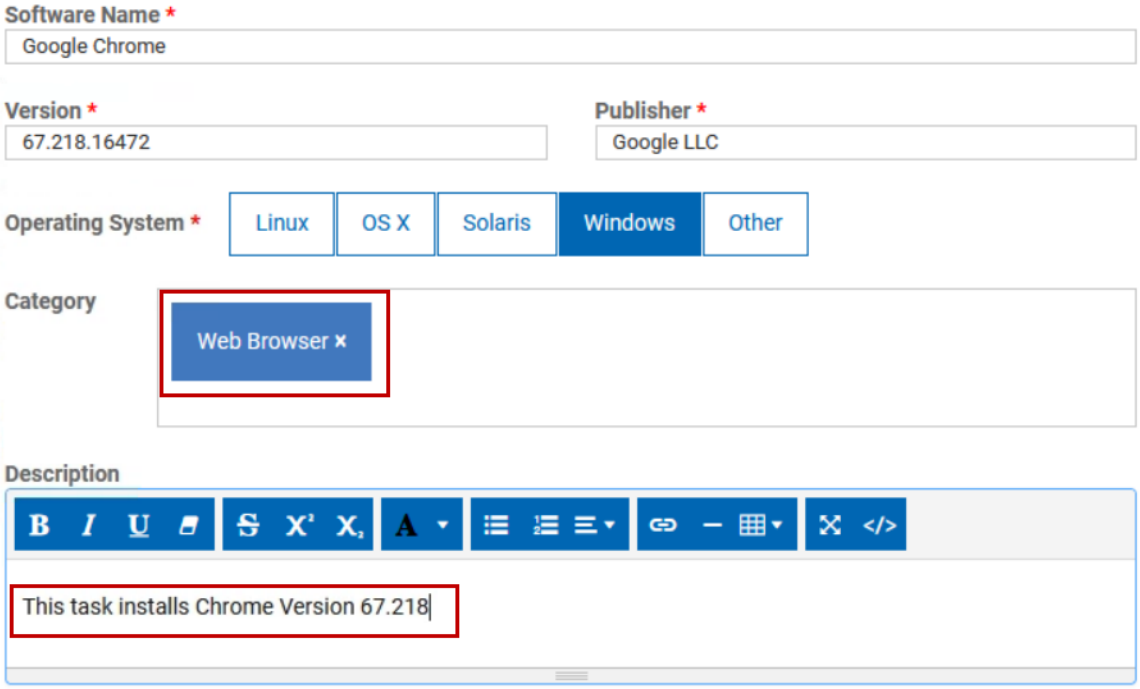
____20) Scroll to the bottom of the **Edit Task** page and click **Save**. The Edit Task page closes and you are returned to the Overview page for the Firefox package.

____21) Follow steps 5 – 20 above to create another Software Package for **Google Chrome** using the following information:

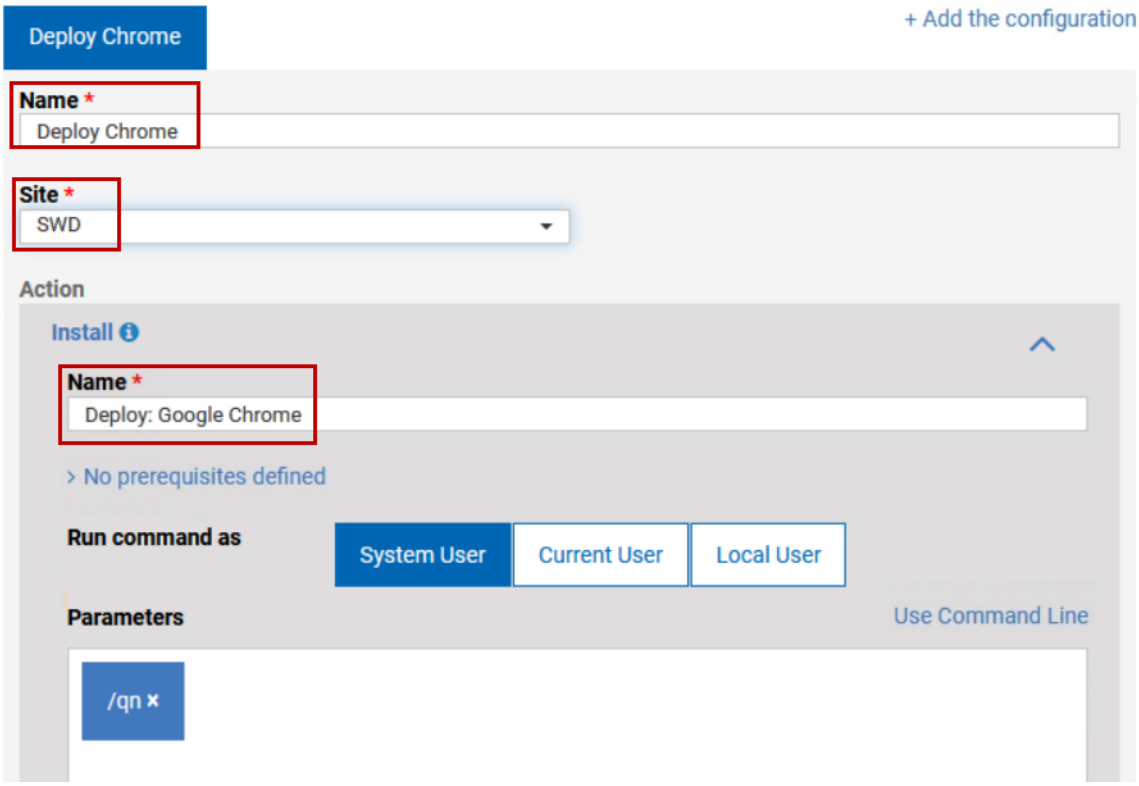
- Software file: Choose **googlechromestandaloneenterprise64.msi** in the following directory:

  C:\Users\Administrator\Desktop\BigFixSrc\Software Distribution\Google Chrome

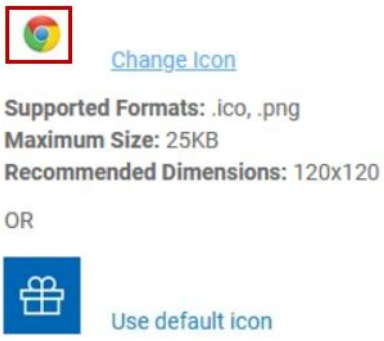
- Category: Begin typing **Web Browser** in the field and select the existing Web Browser category.
- Description: **This task installs Chrome Version 67.218.**



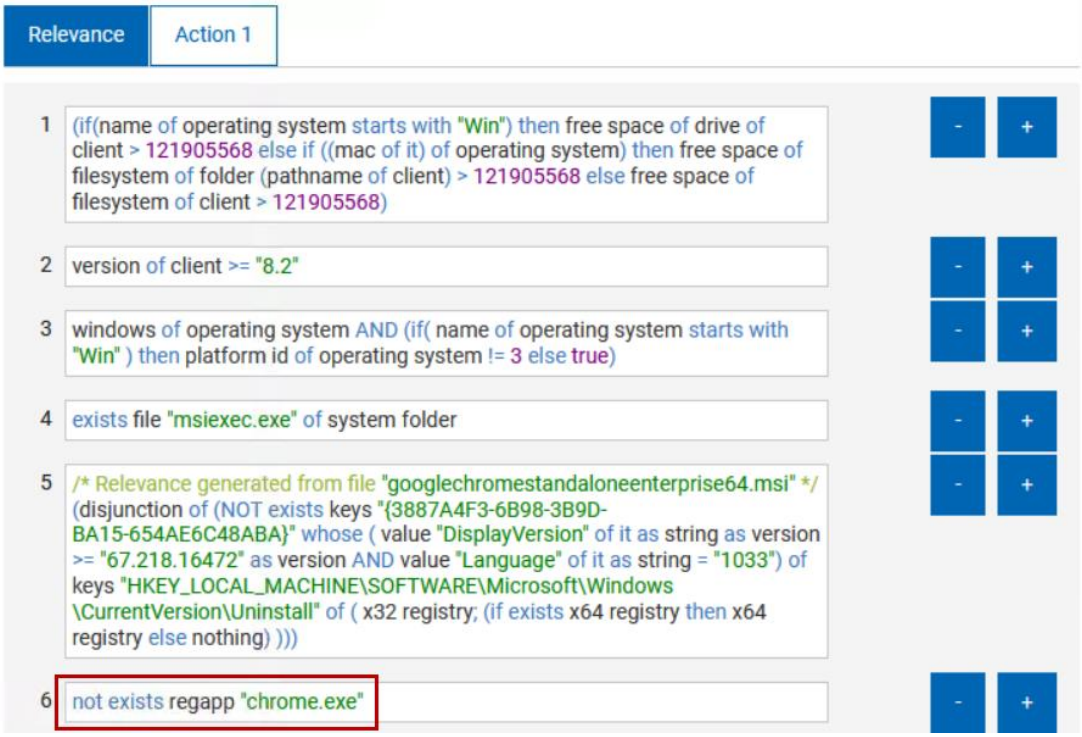
- Configuration Name: **Deploy Chrome**.
- Site: **SWD**
- Action name: **Deploy: Google Chrome**



- Icon file name: **Google.png**

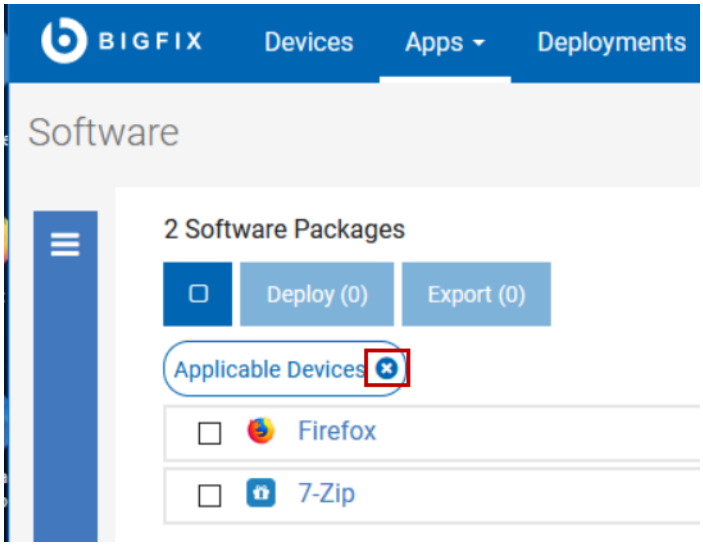


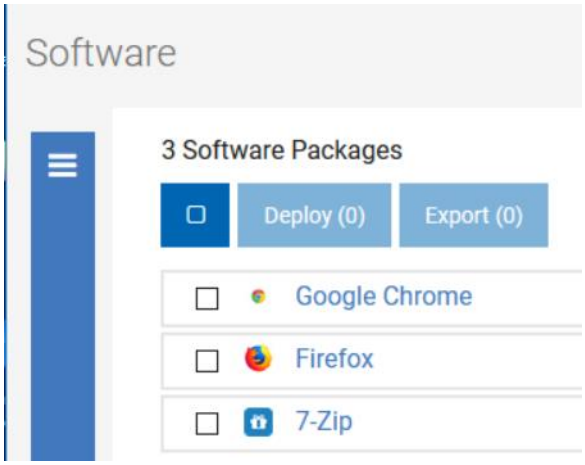
- Additional applicability Relevance statement: **`not exists regapp "chrome.exe"`**



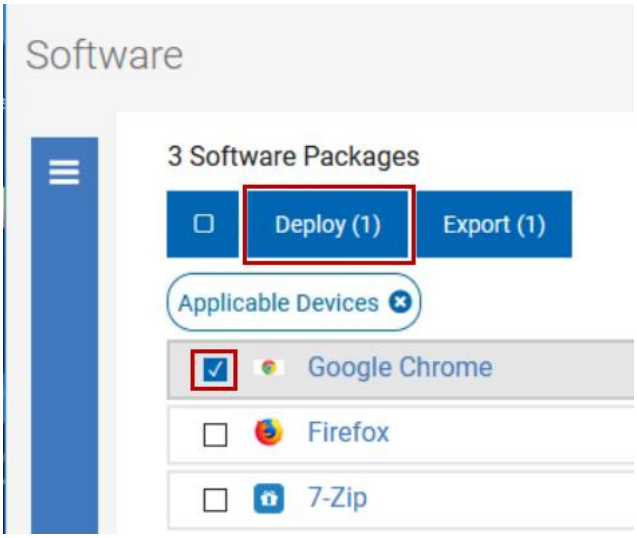
____31) Select **Apps > Software** from the **WebUI** menu at the top of the page. A list of packages that are relevant to at least 1 endpoint are displayed. The Google Chrome software package should be relevant to only BESFNDWINROOT and the Firefox package should only be Relevant to BESFNDWIN10.

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.



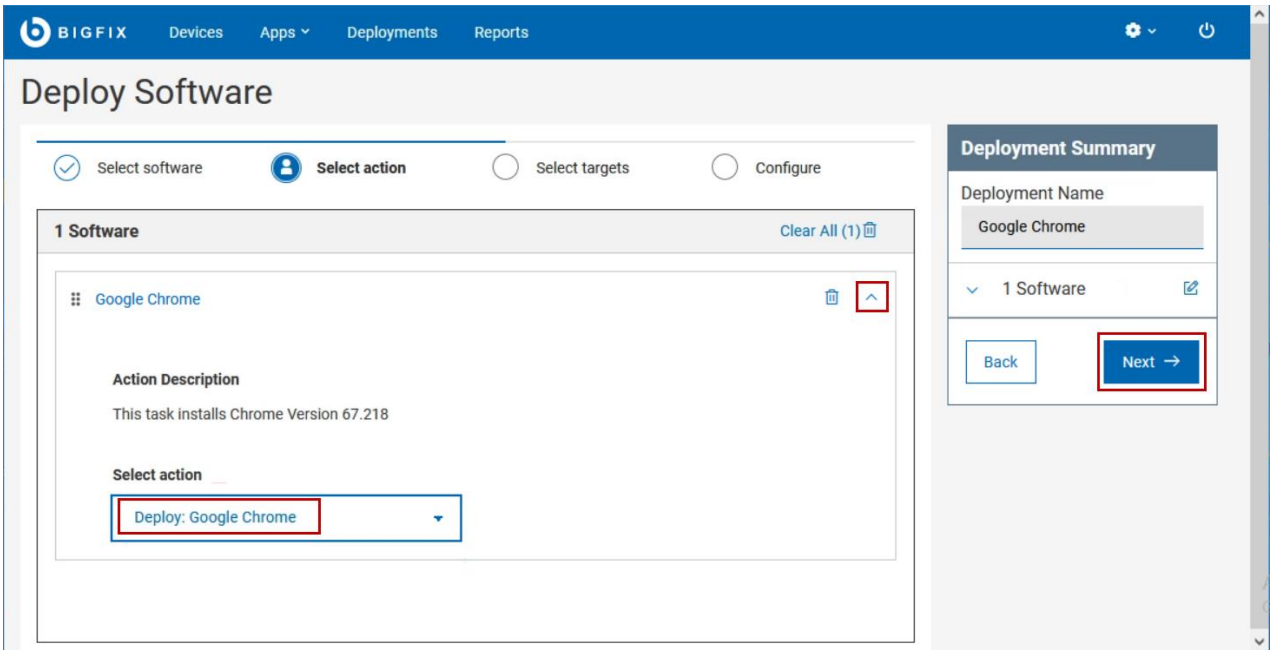


____32) Place a **check** beside the **Google Chrome** package and click **Deploy** at the top of the Software page.



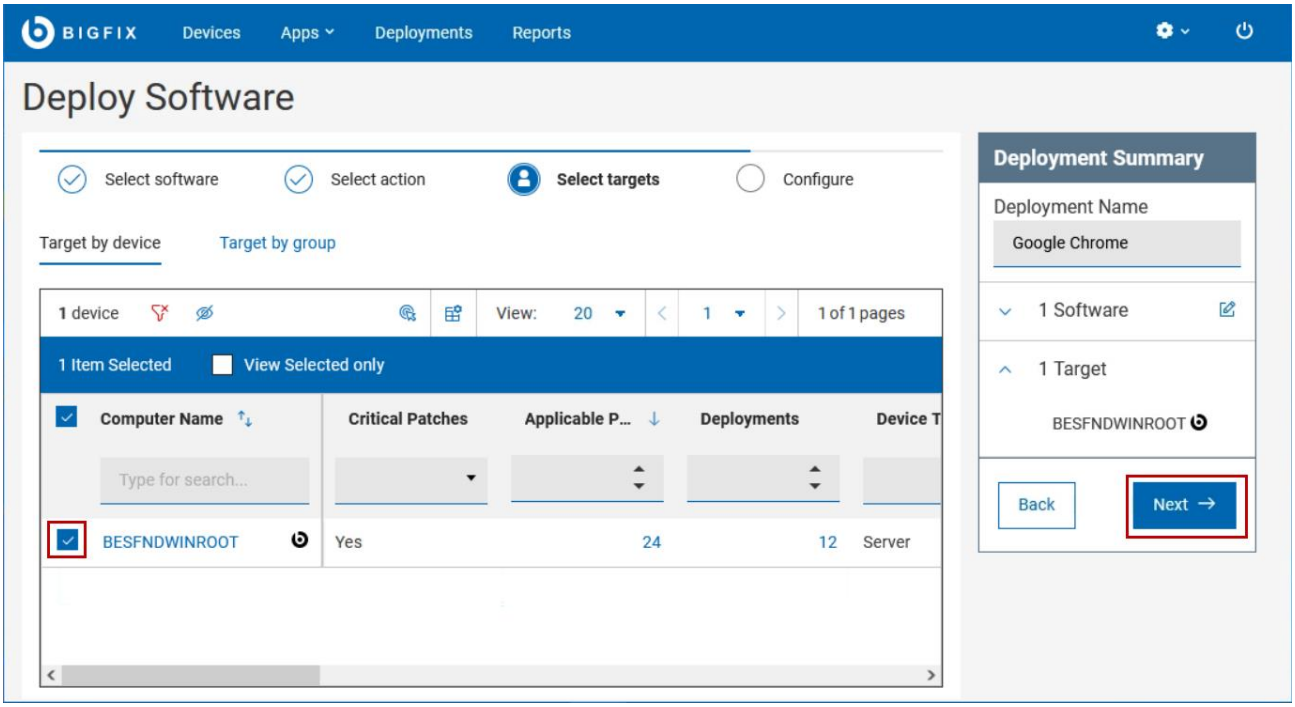
The Deploy Software page opens to the Select action tab.

____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**.



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**.

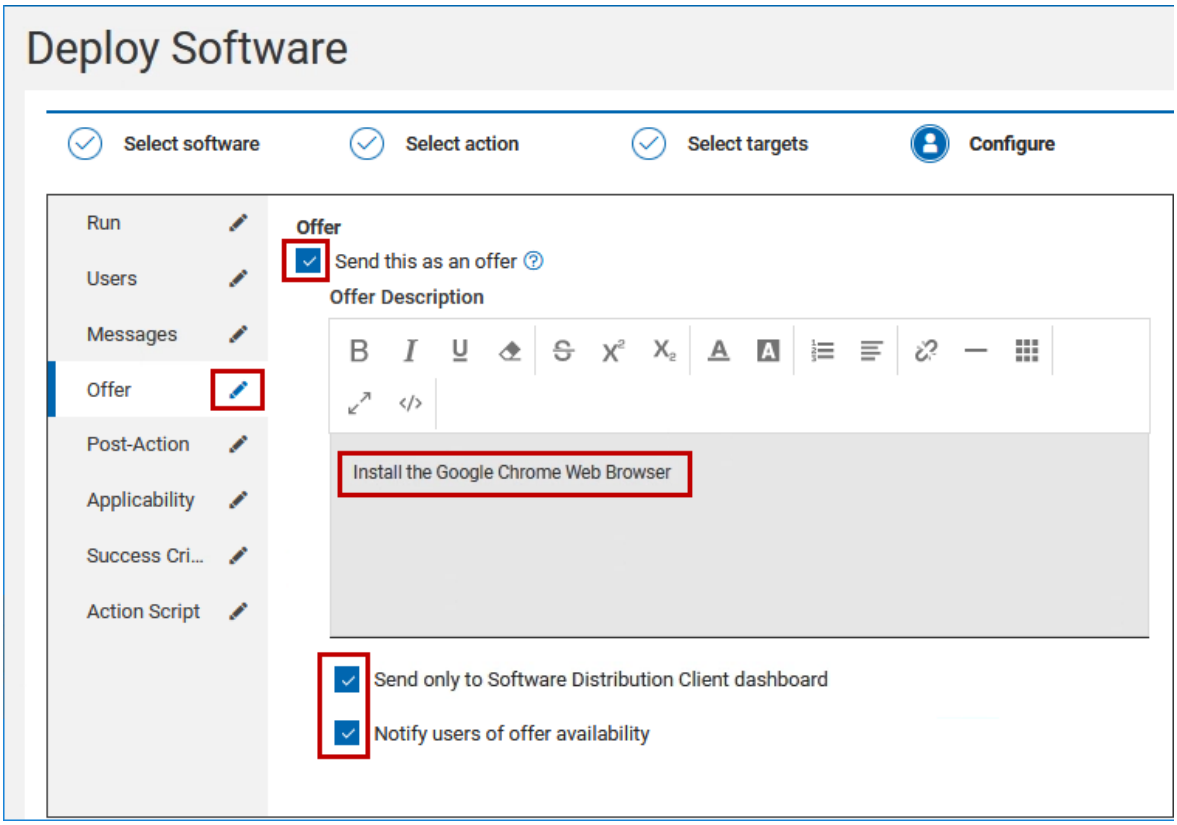


The Configure tab on the Deploy Software page opens.

____35) Select the **No end date** option on the **Run** options page.

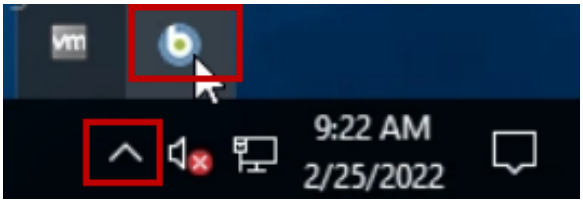
____36) Click the **pencil** icon beside the **Offer** options. The Offer options page opens. Complete the offer options as follows:

- 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.



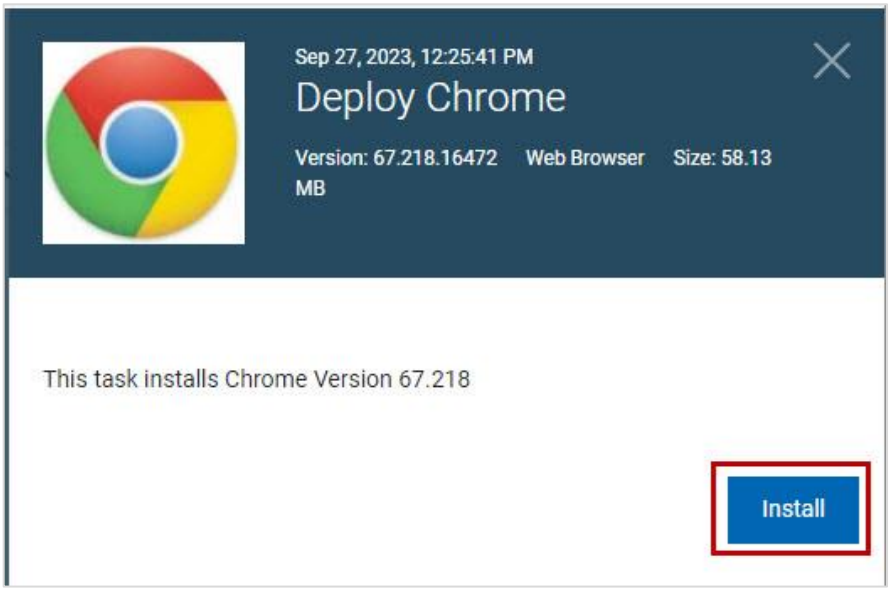
____37) Scroll to the bottom of the **Deploy Software** page click **Deploy** located in the lower-right portion of the page. The Deployment Overview page opens for the action.

____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.



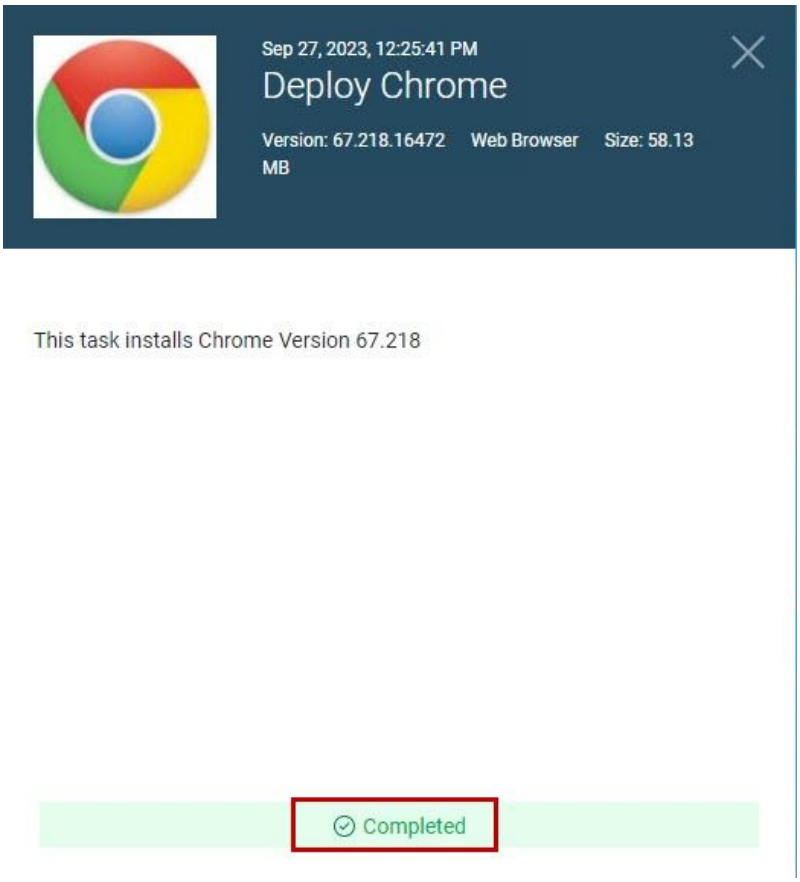
The BigFix Self-Service Application opens and shows the Deploy Chrome package.

____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.



____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.

This completes the exercise.