Guided Exercise: JBoss EAP Management Console

In this lab assignment, you will configure and manage the installed EAP 8 server.

Files	**ND**
app url	**http://localhost:9990**

Result

You should be able to log in as an administrator user and explore the different functions of the administration console.

1. **The EAP 8 server that you installed in the previous lab should be started and running. Otherwise, start the EAP 8 server as the jboss user:**

```
$ sudo -u jboss /opt/jboss-eap-8.0/bin/standalone.sh
```

2. **Add a new admin user:**

   2.1. In a new terminal window, run the add-user.sh script as the user jboss.

```
$ sudo -u jboss /opt/jboss-eap-8.0/bin/add-user.sh
```

   2.2. Add a new user:

   - **User type: administration user (select option a)**
   - **Username: admin**
   - **Password: JBoss@RedHat123**
   - **A list of groups the user belongs to: none (leave blank)**
   - **Will this new user be used for one AS process to connect to another AS process? : No**

use

After the username request, the following output is expected.

```
User 'admin' already exists and is disabled, would you like to...  a) Update
the existing user password and roles  b) Enable the existing user  c) Type
a new username
```

Select option a.

23. **Inspect the mgmt-users.properties file, which allows you to define users who need access to the EAP management console, either through the web interface or the CLI.**

    Using the text editor, open the JBOSS_HOME/standalone/configuration/mgmt-users.properties file.

2.4. **Check that this file contains the admin user and that the user has a hashed password.**

2.5. **The same file is also available in the domain folder of the EAP 8 installation. It will be used by the managed domain to ensure the administrative console as well.**

    Using the text editor, open the JBOSS_HOME/domain/configuration/mgmt-users.properties file.

    Check that the admin user also appears in this file. Notice that the same credentials were defined for the standalone mode and the managed domain.

2.6. **Close the two mgmt-users.properties files.**

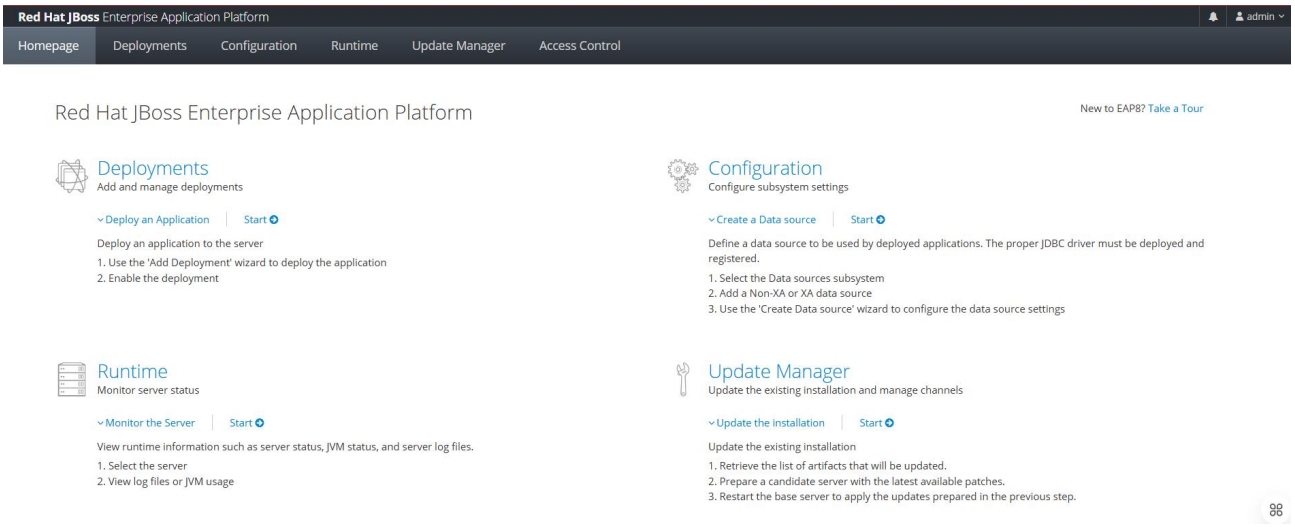
use

You should also see the jbossadm user in these files. This was added during the Install EAP guided exercise.

3. **Log in to the administration console:**

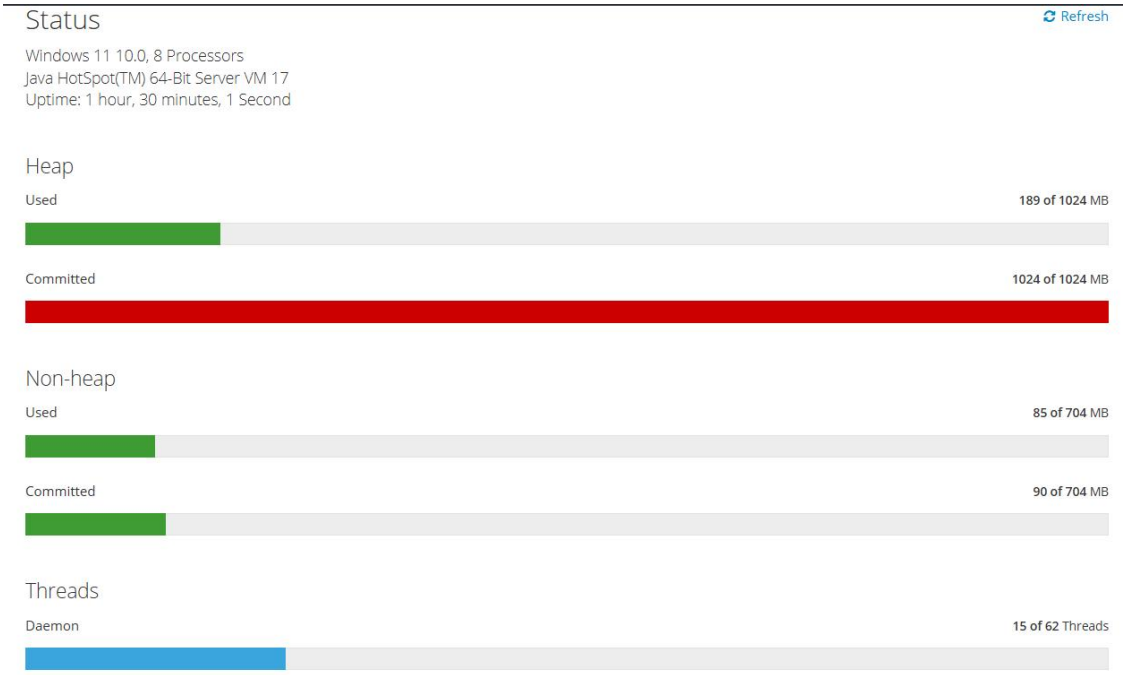
3.1. **In the web browser, go to http://localhost:9990/, which is the location of the management console. You will be prompted to sign in. Log in as the admin user you created in the previous step, with the password JBoss@RedHat123.**

    You should see the EAP 7 management console home page:



4. The JVM (Java Virtual Machine) is responsible for managing the memory count used by the application server and deployed applications, as well as managing class loading. In this step, you will read the metrics obtained from the JVM, using the EAP management console.

View the JVM Status page of the EAP management console. Navigate to (Runtime > admin > statys) and click the View button to view the JVM details.

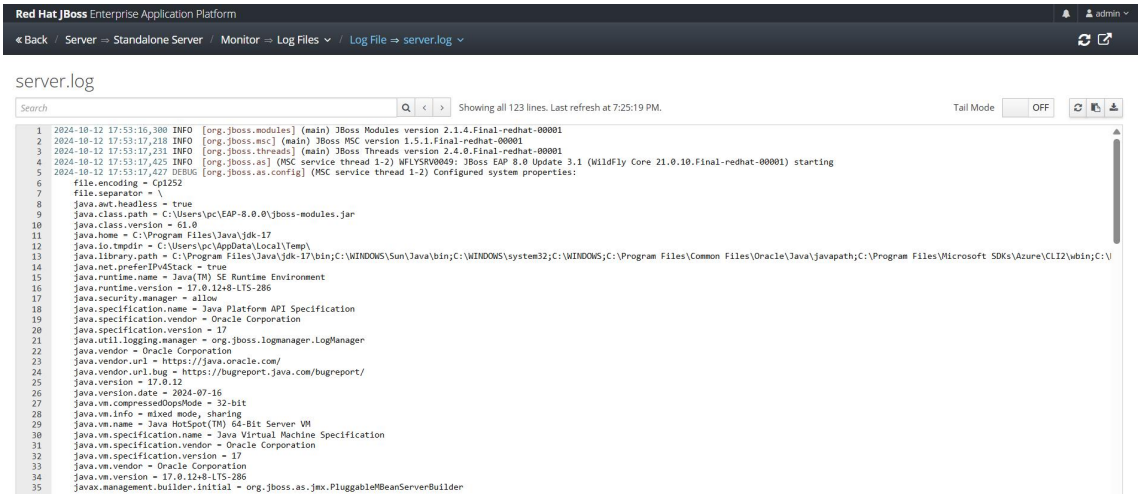


5. **View the EAP server logs.**

   EAP server logs are stored on the local file system, but sometimes, due to file system access restrictions, the administrator may need to access the file system through the web console.

   Click the blue <<Back link at the top left of the JVM Status page to go back, navigate to Runtime > Standalone Server > Log Files and click the View button to view the log viewer.

Select the server.log entry in the table that appears and click the View button to view the server logs.

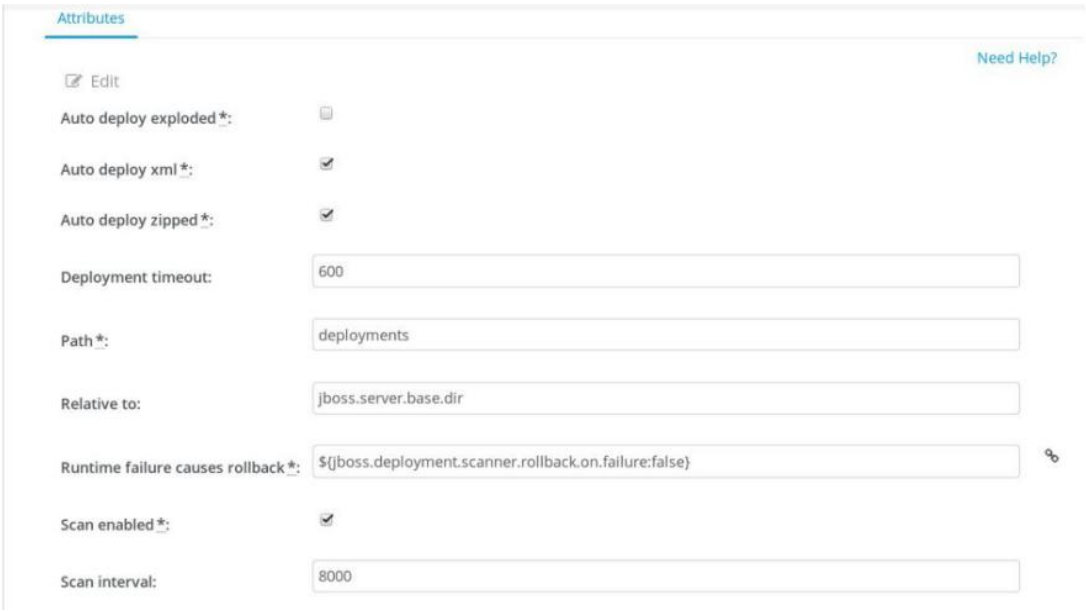


6. **Change the deployment scanner interval.**

   The EAP Deployment Scanner is a subsystem that periodically scans and detects new application deployments (WAR, EAR, JAR files, etc.) to the application server. In this step, the time interval that EAP will scan for new files in the deployments directory will be updated.

   6.1. **Click the <<Back link at the top left of the View Logs page to go back, navigate to Configuration > Subsystems > Deployment Scanners and click the View button to view the Deployment Scanners configuration page.**

   Click the blue Edit link in the Attributes table and change the Scan Interval value from the default of 5000 (5 seconds) to 8000 (8 seconds).



6.2. Click the Save button when finished.

7. Verify the configuration changes:

7.1. Open the JBOSS_HOME/standalone/configuration/standalone.xml file in a text editor.

7.2. Verify that the deployment-scanner subsystem reflects the changes you made through the administrative console.

```
....
<subsystem xmlns="urn:jboss:domain:deployment-scanner:2.0">
 <deployment- scanner path="deployments" relative-
 to="jboss.server.base.dir" scan-interval="8000" runtime-failure-
 causes
 rollback="${jboss.deployment.scanner.rollback.on.failure:false}"/>
</subsystem>

....
```

7.3. Run the JBoss EAP CLI tool and verify that the configuration changes are visible.

The CLI tool will be introduced later, but it uses a bash script-like approach to customizing the EAP configuration files. For a while, to get information about the deployment scanner subsystem, open a terminal window, run the jboss-cli.sh script, and connect to the running EAP instance using the following commands:

```
$ sudo -u jboss /opt/jboss-eap-8.0/bin/jboss-cli.sh --connect
[standalone@localhost:9990                                  /]
/subsystem=deployment-scanner/
scanner=default:read-resource {

    "outcome" => "success", "result"
    => { "auto-deploy-
        exploded"   =>   false,   "auto-
        deploy-xml"   =>   true,   "auto-
        deploy-zipped"      =>      true,
        "deployment-timeout"  =>  600,
        "path"     =>     "deployments",
        "relative-to"                  =>
        "jboss.server.base.dir", "scan-
        enabled" => true, "scan-interval" => 8000


    }
}
```

7.4. Exit the CLI by running the exit command:

```
[standalone@localhost:9990 /] exit
```

8. Turn off EAP.

8.1. Before moving on to the next lab, if EAP is running, shut down the EAP 8 server by pressing Ctrl+C in the terminal window in which you started EAP 8.

This concludes the guided exercise.

Lab Work: Red Hat JBoss Enterprise Application Platform: Architecture and Features

In this lab, you will uninstall the existing EAP instance, reinstall it using the automated installation method (myinstall.xml file), and configure the server.

Files	**/home/student/installs/jboss-eap-8.0.0-installer.jar** **/opt/ myinstall.xml** opt/ **myinstall.xml.variables**
EAP 8 Management Console URL	**http://localhost:9990**

Result

You should be able to install an instance of EAP 8.

1. **In this step, we will uninstall EAP 8 installed in a previous lab job using the uninstaller. EAP 8 will then be reinstalled using an automated approach, using a response file.**

   1.1. **Uninstall the existing instance of EAP 8 in /opt/jboss-eap-8.0 using the EAP 8 uninstaller as root. (Tip: sudo).**

   Check the Force remove /opt/jboss-eap-8.0 check box and click the Uninstall button to remove the EAP installation.

   1.2. **Verify that the /opt/jboss-eap-8.0 folder no longer exists.**

2. **An administrator installed EAP on an existing host and you want to replicate the same installation process on workstation. This step will provide the answer file generated during the installation process to install EAP in a repeatable manner.**

   Install EAP 8 using an automated installer with the following features:

   - **Administrator username: jbossadm**
   - **Administrator password: JBoss@RedHat123**
   - **Installation path (JBOSS_HOME): /opt/jboss-eap-8.0**

   The variable file (myinstall.xml.variables) and response file (myinstall.xml) are available at /home/student/labs/features eap/. The EAP 8 installer is located at /home/student/installs. Check if the configuration of these files follows the expected characteristics:

3. **Verify that the /opt/jboss-eap-8.0 folder has been created and verify that the startup and other scripts (standalone.sh, domain.sh, add-user.sh etc...) are available in the JBOSS_HOME/bin folder.**
4. The recommended approach is to run EAP as a non-root user to prevent security breaches that allow malicious users to access the host with administrative permissions. A user named 'jboss' has already been created for you.

   Change the owner of the /opt/jboss-eap-8.0 folder and all files within it to user 'jboss' and group 'jboss' via the chown -R command.

   Verify the owner change by running the following command:

   $ **ls -la /opt/jboss-eap-8.0**

5. **Start a standalone EAP server with the jboss user. In a new terminal window, log in as the jboss user to start the EAP 8 instance. (Tip: use the sudo -u jboss command.)**

6. **To verify that the administrator credentials, used for**
   To install EAP, log in to the EAP 8 administration console using the credentials for the jbossadm user (password is JBoss@RedHat123).

7. **Shut down the EAP 8 server by pressing Ctrl+C in the terminal window you started in the EAP 8.**

Solution

In this lab, you will uninstall the existing EAP instance, reinstall it using the automated installation method (myinstall.xml file), and configure the server.

Files		**/home/student/installs/jboss-eap-8.0.0-installer.jar** **/home/student/labs/features-eap/ myinstall.xml** **/home/student/labs/features-eap/ myinstall.xml.variables**
EAP Management Console URL	**8**	**http://localhost:9990**

Result

You should be able to install an instance of EAP 8.

1. In this step, we will uninstall EAP 8 installed in a previous lab job using the uninstaller. EAP 8 will then be reinstalled using an automated approach, using a response file.

use

The qualifying script can be used as a guideline to test progress after running step 1.1, due to the limitation of the lab environment.

1.1. Uninstall the existing instance of EAP 8 in /opt/jboss-eap-8.0 using the EAP 8 uninstaller as root. (Tip: sudo).

Open a terminal window from the workstation virtual machine (Applications > Utilities > Terminal) and run the following commands:

```
$ sudo java -jar  /opt/jboss-eap 8.0/uninstaller/uninstaller.jar
```

Check the Force remove /opt/jboss-eap-8.0 check box and click the Uninstall button to remove the EAP installation.

1.2. Verify that the /opt/jboss-eap-8.0 folder no longer exists.

```
$ ls -la /opt
```

2. **An administrator installed EAP on an existing host and you want to replicate the same installation process on workstation. This step will provide the answer file generated during the installation process to install EAP in a repeatable manner.**

   Install EAP 8 using an automated installer with the following features:

   - **Administrator username: jbossadm**
   - **Administrator password: JBoss@RedHat123**
   - **Installation path (JBOSS_HOME): /opt/jboss-eap-7.0**

   The variable file (myinstall.xml.variables) and response file (myinstall.xml) are available at /home/student/labs/features eap/. The EAP 8 installer is located at /home/student/installs. Check if the configuration of these files follows the expected characteristics:

```
$ cd /home/student/installs/
$ sudo java -jar jboss-eap-8.0.0-installer.jar ../labs/features-eap/myinstall.xml
```

3. **Verify that the /opt/jboss-eap-8.0 folder has been created and verify that the startup and other scripts (standalone.sh, domain.sh, add-user.sh etc...) are available in the JBOSS_HOME/bin folder.**

```
$ ls -la /opt/jboss-eap-8.0
$ ls -la /opt/jboss-eap-8.0/bin
```

4. **The recommended approach is to run EAP as a non-root user to prevent security breaches that allow malicious users to access the host with administrative permissions. A user named 'jboss' has already been created for you.**

   Change the owner of the /opt/jboss-eap-8.0 folder and all files within it to user 'jboss' and group 'jboss' via the chown -R command.

```
$ sudo chown -R jboss:jboss /opt/jboss-eap-8.0
```

   Verify the owner change by running the following command:

```
$ ls -la /opt/jboss-eap-8.0
```

5. **Start a standalone EAP server with the jboss user. In a new terminal window, log in as the jboss user to start the EAP 8 instance. (Tip: use the sudo -u jboss command.)**

```
$ sudo -u jboss /opt/jboss-eap-8.0/bin/standalone.sh
```

6. **To verify that the administrator credentials, used for**
   To install EAP, log in to the EAP 7 administration console using the credentials for the jbossadm user (password is JBoss@RedHat123).

   Open a browser and navigate to http://localhost:9990

7. **Shut down the EAP 7 server by pressing Ctrl+C in the terminal window you started in the EAP 7.**

8. **Open a new terminal window to verify the completion of this job lab by running the following command:**

   $ **lab features-eap grade**

9. **This concludes the lab work.**