Lab 01_02: The Management Console

Performance Checklist

Lab Overview:

In this exercise, you will discover some of the features available in the EAP Management Console.

Lab Resources/Configuration:

Lab Files Location:	n/a
Application URL:	`http://localhost:9990`

Success Criteria: After completing this exercise, you will be able to login to the EAP Management Console.

Outcome: Access to the Management Console, as well as your EAP server will be bound to your local IP address.

Lab Outline:

1. Login to the Management Console
2. View the Server Status
3. View the Profile Page
4. Change the Deployment Scanner Interval
5. Change the Public Bind Address
6. Reload the Server
7. Verify the Configuration Change
8. View a Configuration's History

Before you begin...

Make sure you have EAP running.

☐ 1. Login to the Management Console

☐ 1.1. Point your web browser to `http://localhost:9990/`, which is the location of the Management Console. You should be prompted to login. The username is **`admin`** and the password is **`jboss`**.

Insight

The credentials **`admin`**/**`jboss`** were entered during the EAP Installer wizard in the previous lab. If you install EAP by simply unzipping it, then you will need to add a user using the **`add-user.sh`** (or **`add-user.bat`**) script in the ***`EAP_HOME`***`/bin` folder. You will see how to use this script in Unit 3 when you configure a Domain.

- ☐ 1.2. The **mgmt-users.properties** file is for defining users who need access to the EAP Management Console, either through the web interface or using the CLI. (Notice that you can add users to an already running instance of EAP, because EAP will automatically detect changes to this file.) Using a text editor, open the file ***EAP_HOME*/standalone/configuration/mgmt-users.properties**.
- ☐ 1.3. Verify that you have a user named **admin** in this file, and the user has an encrypted password.
- ☐ 1.4. Using a text editor, open the file ***EAP_HOME*/domain/configuration/mgmt-users.properties**.
- ☐ 1.5. Verify that the **admin** user also appears in this file. Notice that the credentials **admin/jboss** are defined for both Standalone and Domain mode.
- ☐ 1.6. Close the two **mgmt-users.properties** files.

☐ 2. View the Server Status

- ☐ 2.1. Go back to the Management Console. Notice that the initial page displayed is the the **Runtime** page for your Standalone server. In the Server Configuration section of this page, what is the **Code Name** of your running EAP server? _____ What is the release version? _____
- ☐ 2.2. Click on the JVM page under **Status**. What is the maximum heap size of the JVM running your Standalone server? _____ How much of that heap is currently being used? _____

Note

We will discuss the **Server**, **Status**, and **Runtime Operations** sections of the Management Console later in this course.

☐ 3. View the Profile Page

- ☐ 3.1. Click on the **Profile** link in the upper right corner of the Management Console to access the profile settings of your Standalone server.
- ☐ 3.2. Notice in the left column is a list of the various subsystems available for configuration using the Management Console. For example, there is a **Core** section for configuring the core subsystems. Expand the **Core** tree, then click on the **Logging** link to view the logging settings.
- ☐ 3.3. Notice the **Logging** page has three subpages accessible via the three tabs at the top: **Root Logger**, **Log Categories**, and **Handler**. Click on the **Handler** page. How many logging handlers are configured out-of-the-box for a Standalone server? _____

☐ 4. Change the Deployment Scanner Interval

- ☐ 4.1. From the **Core** menu on the **Profiles** page, click on the **Deployment Scanners** page. Notice there is one deployment scanner, named "default". What is the

current scan interval of the default deployment scanner? _____
Do exploded applications automatically deploy? _____

- ☐ 4.2. Click the **Edit** button in the **Details** section of the **Deployment Scanners** page.
- ☐ 4.3. Change the scan interval to 7000 milliseconds (7 seconds).
- ☐ 4.4. To save your change, click the **Save** button.
- ☐ 4.5. Notice in the upper-right corner of the Management Console that you should now have a new message. Click on the **Messages** link to view the new message:

Insight

Clicking on a message displays it in a popup window. Once you read a message, it still appears in the list of messages, but it shows up as being read. The number next to the **Messages** link is the number of unread messages available.

Note

There is a lot of information and many details we need to discuss about configuring profiles and subsystems. You will see most of these **Profile** subpages throughout the remainder of the course as you learn how to use the Management Console (and later, the CLI tool) to configure your EAP environment.

- ☐ 5. Change the Public Bind Address
  - ☐ 5.1. Determine your machine's IP address, which should look like `192.168.0.xx`, where *xx* is your station's number.
  - ☐ 5.2. Point your web browser to `http://192.168.0.xx:8080/`. You should get an error page, because your EAP server is only bound to your localhost. To make

your server accessible to the outside world, you need to define a property named **jboss.bind.address**, which you will do now.

Insight

Without specifying a **jboss.bind.address**, your server is unavailable to the outside world because it is bound to your localhost. This is a security feature of EAP so that an out-of-the-box installation of EAP can not be started and seen by other machines until a proper **jboss.bind.address** is defined.

- ☐ 5.3. From the **Profile** page of the Management Console, click on the **Interfaces** link in the **General Configuration** section of the left-side navigation tree.
- ☐ 5.4. The **Interfaces** page displays the network interfaces configured in your Standalone server. Notice there are three pre-defined network interfaces: **management**, **public** and **unsecure**.

Insight

The **management** interface is how management tools connect to your server, like the Management Console on port 9990. The **public** interface allows the server to be reached by HTTP, like the **welcome-content** on port 8080. The **unsecure** interface allows remote RMI access.

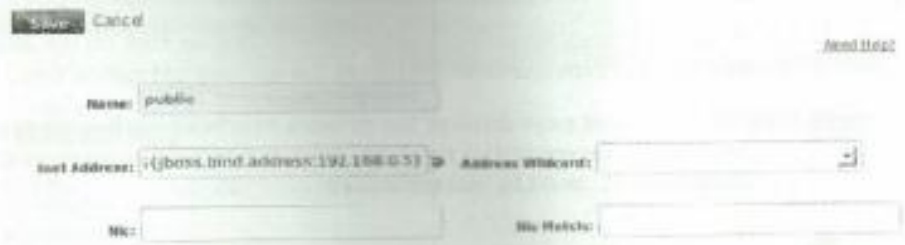
- ☐ 5.5. Select the **public** interface in the list by clicking on it. Notice that the settings for the **public** interface appear at the bottom half of the page.
- ☐ 5.6. Click the **Edit** button near the middle of the page, which allows you to modify the settings of the **public** interface. Notice the values become editable textfields.

☐ 5.7. The **Inet Address** property represents the IP address that EAP binds to when it starts up. The default value is:

```
${jboss.bind.address:127.0.0.1}
```

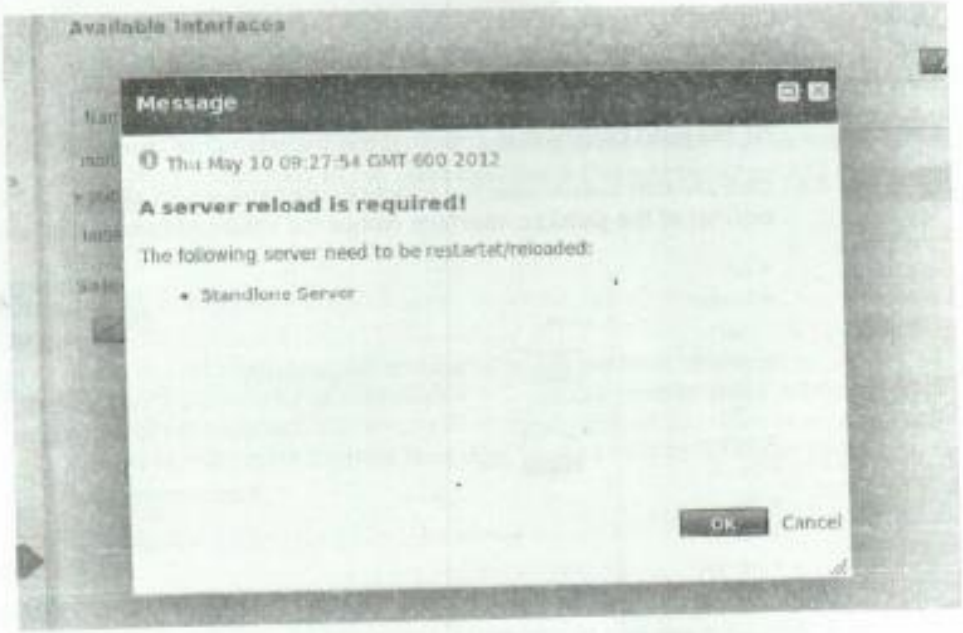
The **$** and curly braces **{ }** mean that the **Inet Address** will be set to the Java runtime property named **jboss.bind.address**. If this property is not defined, then it will default to `127.0.0.1`, which is the value after the colon.

☐ 5.8. Replace the default value of **jboss.bind.address** from `127.0.0.1` to the actual IP address of your machine.



☐ 5.9. Click the **Save** button to save your changes.

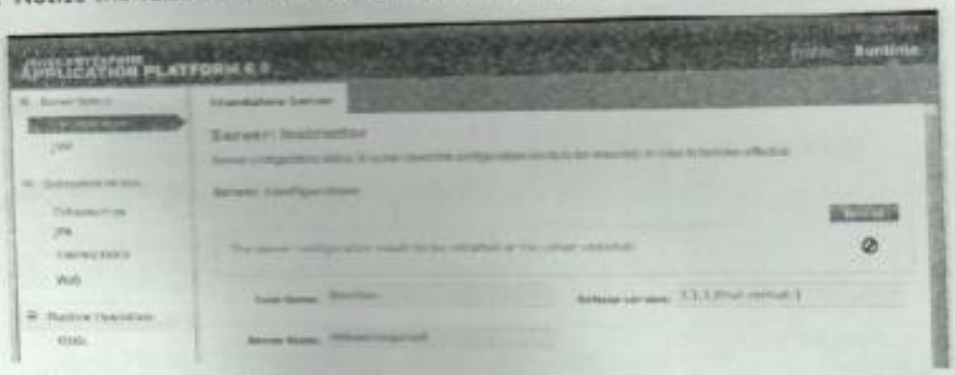
☐ 5.10. Notice a warning appears at the top of the web page near the **Messages** link stating that the server needs to be reloaded (which you will do in the next step). Click on the message to view more information:



☐ 6. Reload the Server

☐ 6.1. Go the **Runtime** page of the Management Console.

- ☐ 6.2. Click on the **Configuration** page, which is found in the **Server** section of the left-side panel's navigation tree.
- ☐ 6.3. Notice the value of **Server State** is "reload-required".



- ☐ 6.4. Click the **Reload** button to reload the server. Select **Confirm** when the confirmation dialog appears.
- ☐ 6.5. Click on the **Configuration** link again to refresh the status. The **Server State** should now be **"running"**.
- ☐ 6.6. Look in the terminal window that EAP is running in. You should see in the output that your server shut down, then started back up again.

☐ 7. Verify the Configuration Change

- ☐ 7.1. To verify that your EAP server is now bound to your local IP address, point your browser to `http://192.168.0.xx:8080/`, replacing *xx* to match your machine's IP address. You should see the EAP 6 Welcome page.
- ☐ 7.2. Now try connecting to someone else's EAP server by using other IP addresses in the classroom. Have another student try to connect to your EAP server from their machine.
- ☐ 7.3. As we mentioned earlier in this Unit, changing a setting using the Management Console also changes the underlying XML configuration file. Using a text editor, open the file ***EAP_HOME*/standalone/configuration/standalone.xml**.
- ☐ 7.4. Scroll down to the **<interfaces>** section near the bottom of the file. You should see the three interfaces defined, and your **public** interface's default **jboss.bind.address** value should be the IP address that you changed it to in the Management Console.

Insight

You do not need to edit the configuration to bind to a specific address. At runtime, you can simply define the **jboss.bind.address** property. For example, if you want to bind EAP to the IP address 192.168.0.195, the syntax looks like:

```
./standalone.sh -Djboss.bind.address=192.168.0.195
```

In previous versions of EAP, this same result was accomplished using the **-b** option, which is still available in EAP6:

```
./standalone.sh -b 192.168.0.195
```

However, if you are in a production environment where **-D** or **-b** is not an option, you will need to modify the default values for **jboss.bind.address**, **jboss.bind.address.management**, and **jboss.bind.address.unsecure** in **standalone.xml** (or **host.xml** if you are using Domain mode).

Important

Using 0.0.0.0 for the **jboss.bind.address** tells EAP to bind to every possible IP address available on the local machine, a common use case when starting EAP.

Important

If you want to access the Management Console of an EAP instance from a remote machine, then you need to assign the **jboss.bind.address.management** property to an IP address of the machine running EAP. Notice in the classroom that you can not access the Management Console on another student's machine, because EAP sets **jboss.bind.address.management** to 127.0.0.1 out-of-the-box by default.

☐ 8. View a Configuration's History

☐ 8.1. Browse to your ***EAP_HOME*/standalone/configuration** folder. Notice there is a subfolder named **standalone_xml_history**. View the contents of this folder.

☐ 8.2. EAP keeps a copy of every version of the configuration file after each modification. This allows you to quickly rollback to a previous configuration. The **standalone_xml_history** folder contains three versions of **standalone.xml**:

- **standalone.boot.xml**: the version used when this instance booted up.

- **standalone.initial.xml**: the initial version of **standalone.xml**.
- **standalone.last.xml**: the last (and current) version.

☐ 8.3. Look in the **current** folder. You will see multiple versions of **standalone.xml**, which represent the history of each change made to your Standalone instance.

Insight

When restarting the server, any existing **standalone_xml_history/current** directory is moved to a new timestamped folder within **standalone_xml_history**, and a new **current** folder is created. These timestamped folders are kept for 30 days.

☐ 8.4. Look in the **snapshot** folder. It is currently empty, but this folder will contain any snapshots that you take of your configuration. A snapshot allows you to create a backup of a configuration without modifying it. Snapshots are not automatically deleted - they persist as long as you keep them around. You use the CLI tool to take a snapshot, which is discussed in Unit 5, *The CLI Tool*.

☐ 9. OPTIONAL: Bind the Management Console

☐ 9.1. If you have time, try setting **jboss.bind.address.management** to your IP address and see if another student can now log in to your Management Console