Guided Exercise: Assigning a Domain Controller

In this lab work, you will map the domain controller and boot it from the workstation virtual machine.

Resources	
Files:	/home/student/JB248/labs/domain
App URL:	http://172.25.254.250:9990

Results

You should be able to start a domain controller on the workstation virtual machine.

Before you begin

Before you begin the guided exercise, run the following command to verify that EAP was installed to /opt/jboss-eap-7.0 and that no EAP instances are running, and to download the files for the exercise:

```
[student@workstation ~]$ lab assign-controller setup
```

1. Create a new domain base directory on the Workstation virtual machine.

   Copy the /opt/jboss-eap-7.0/domain folder to a new machine1 folder located in the /home/student/JB248/labs/domain/ lab directory. As a result, the machine1/domain folder will be created, which should contain three subfolders: configuration, data, and tmp:

```
[student@workstation ~]$ cd /home/student/JB248/labs/domain
[student@workstation domain]$ mkdir machine1
[student@workstation domain]$ cp -r /opt/jboss-eap-7.0/domain machine1/domain
```

> ## use
>
> In the end, you will have one domain controller and two host controllers running on your workstation. In reality, you'll probably be using these three drivers on separate computers, so we'll simulate separate computers by using subfolders called machine2, machine1, and machine3.
>
> In this lab, you will configure machine1 to function as the master controller. In the next lab, you will create and configure machine2 and machine3 as slave controllers that connect to machine1.

2. Set up files on machine1 for a domain controller.

   2.1. Use the editor of your choice and open the host-master.xml file in the /home/student/JB248/labs/domain/machine1/domain/configuration folder. This host configuration file configures a domain controller that does not manage any local servers.

2.2. Notice the following line at the beginning of the host-master.xml file:

```
<host xmlns="urn:jboss:domain:4.1" name="master">
```

Notice that this line sets the name of this host to be "master".

23. Notice that there is only one interface defined in host-master.xml, which has the name management.

```
...
     <interfaces>
          <interface name="management"> <inet-
               address value="${jboss.bind.address.management:127.0.0.1}"/>
          </interface> </
     interfaces>
...
```

It is assumed that the host machine running the domain controller does not host the servers, consequently you do not need to define a public network interface for the server instances to accept user requests.

2.4. Any slave must be configured to point to the IP address of the controller Of domain.

2.5. The labs will simulate multiple computers, and binding to 127.0.0.1 will not make the domain controller in the machine1 folder visible to external computers.

We can specify the jboss.bind.address.management property for the startup script, but you will manually edit the XML file instead.
Modify the inet-address of the management interface to match the IP address of your workstation machine (172.25.250.254). The <interfaces> section of host-master.xml should appear as follows:

```
<interfaces>
     <interface name="management"> <inet-
          address value="${jboss.bind.address.management:172.25.250.254}"/>
     </interface> </
interfaces>
```

2.6. Save the changes to host-master.xml and close the text editor.

2.7. Abra el archivo domain.xml en /home/student/JB248/labs/domain/machine1/ domain/configuration.

2.8. Inside the messaging-activemq subsystem of the full-ha profile, edit the <cluster> tag (line 1278):

```
<cluster password="${jboss.messaging.cluster.password:JBoss@RedHat123}" />
```

> ✉ **use**
>
> **Clustered storage is described in more detail later in this course. At this time, the value is required to prevent error messages in the terminal.**

2.9. Save the changes to domain.xml.

3. Start the domain controller on the workstation virtual machine.

3.1. In the terminal window, change to /opt/jboss-eap-7.0/bin:

```
[student@workstation domain]$ cd /opt/jboss-eap-7.0/bin
```

3.2. To start the master host controller using the host-master.xml file in your /home/ student/JB248/labs/domain/machine1/domain/ folder, enter the following command:

```
[student@workstation bin]$ ./domain.sh \
-Djboss.domain.base.dir=/home/student/JB248/labs/domain/machine1/domain/ \ --host-config=host-master.xml
```

Because you are starting a domain controller with no application server instances attached, it should start quickly. Observe the following output to confirm that the domain controller is running:

```
[Host Controller] 01:50:11,359 INFO [org.jboss.as] (Controller Boot Thread)
  WFLYSRV0060: Http management interface listening on http://172.25.250.254:9990/
management
[Host Controller] 01:50:11,359 INFO [org.jboss.as] (Controller Boot Thread)
  WFLYSRV0051: Admin console listening on http://172.25.250.254:9990
```

> ✉ **use**
>
> **This host controller instance does NOT use the default host.xml configuration file, so the --host-config option is required. The --domain-config option is not required as it IS using the default managed domain configuration file domain.xml.**

4. Verify that the domain controller is up and running.

4.1. Open a web browser on the workstation virtual machine and point the browser to http://172.25.250.254:9990/ to access the EAP management console from the domain controller.

4.2. You will be prompted for credentials. The administrator username is jbossadm and the password is JBoss@RedHat123. These values were inherited from the EAP installation process in Chapter 1.

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5. Browse the administration console in domain mode.
   5.1. The administration console is somewhat different in a managed domain
   compared to the administration console when running a standalone server. In
   the Runtime section, there is the option to browse the domain through Hosts or Server
   Groups.

   5.2. Click the Hosts category under Browse Domain By and click master in the Host
   column. Notice that since there are no servers running (you haven't defined or
   started any yet), the Runtime page doesn't have any useful information to display.

   5.3. Click on the Settings page. You saw some of the profile details when you had a
   standalone server up and running. Notice that this page looks similar to when EAP is
   running as a standalone server:
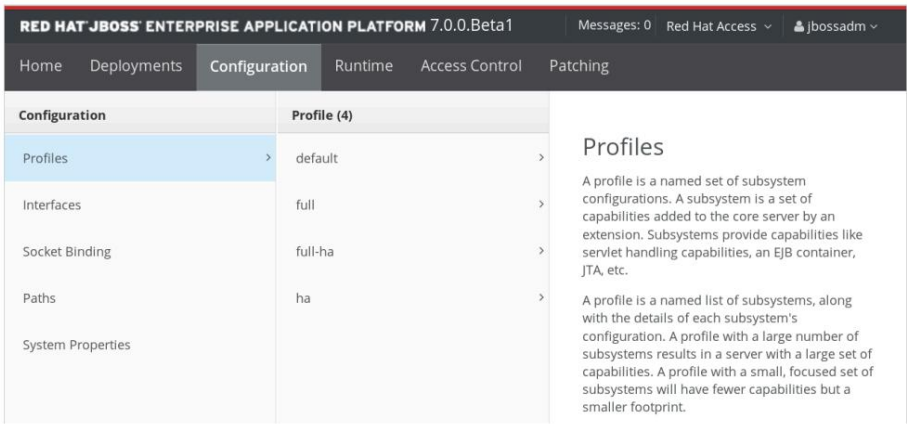
   5.4. Click on the Profile option: to see all the profiles defined in your profile file.
   domain.xml configuration.

   use

   Remember that in a managed domain you can have multiple profiles
   defined and that each profile has a unique name. Contrast this with
   running EAP as a standalone server, where there is a single anonymous
   profile.

6. Perform cleaning.
   6.1. Stop the domain controller by pressing Ctrl+C in the terminal window
   that runs it.

   This concludes the guided exercise.