Modern Business in the Cloud

ORACLE

400

Oracle Public Cloud Workshop

Fusion Middleware

Cloud Services

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Introduction

In this lab you will modify the Oracle Traffic Director environment to support traffic on port 8080 and then run a mobile application against your deployments created in Lab 200 using an Android emulator.

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Objectives

- ☐ Make changes to enable port 8080.
- ☐ Add a cloud network protocol and rule to route traffic to OTD via port 8080.
- ☐ Bring up an Android emulator VM, and test a mobile application against your JCS instance.

Required Artifacts

- ☐ The following labs assume that the steps outlined in lab guide 200 have been completed.

Outline

Operation Tasks

Configure Oracle Traffic director for port 8080

STEP 1:   Log into the Load Balancer - Enable port 8080

☐ From the **Java Cloud Service** used in Lab 100 (Alpha01A-JCS) select **Open Load Balancer Console.**

☐ Logon as **weblogic/Alpha2014_**

☐ Under the **"opc-config"** configuration select **Listeners→http-listener-1**
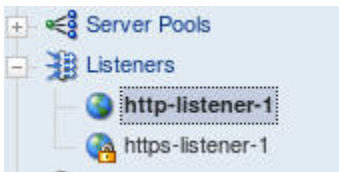
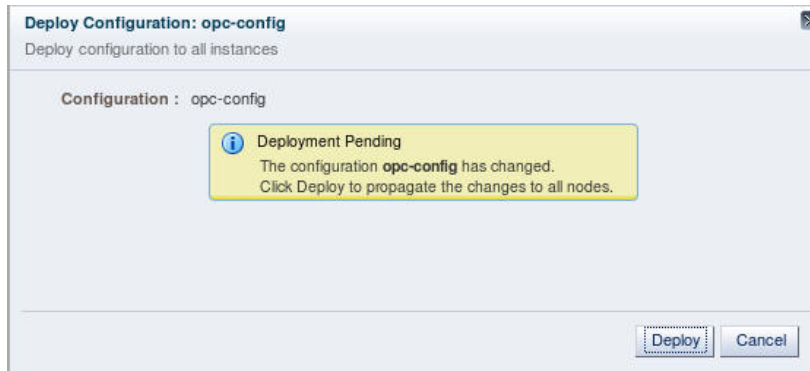☐ Check the **Enabled** checkbox, and if not already set, change the port number to **8080**:

☐ **Save** the changes, click **Deploy Changes** and then confirm by clicking on the **Deploy** button:

☐ Click **Close** after the deployment is done.

☐ You should see a successful deployment in the log section.
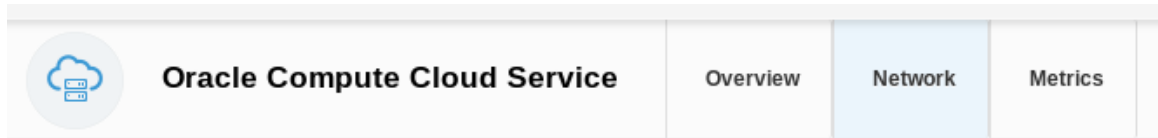
Configure Firewall Protocol and Access Rule

STEP 2: Add Traffic Routing Protocol and Rule in Compute Cloud Service
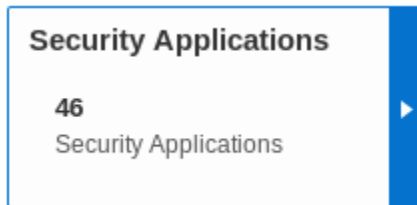
☐ Back in on the Cloud Service page, select the **Consoles** dropdown and pick **Compute Cloud Service**.
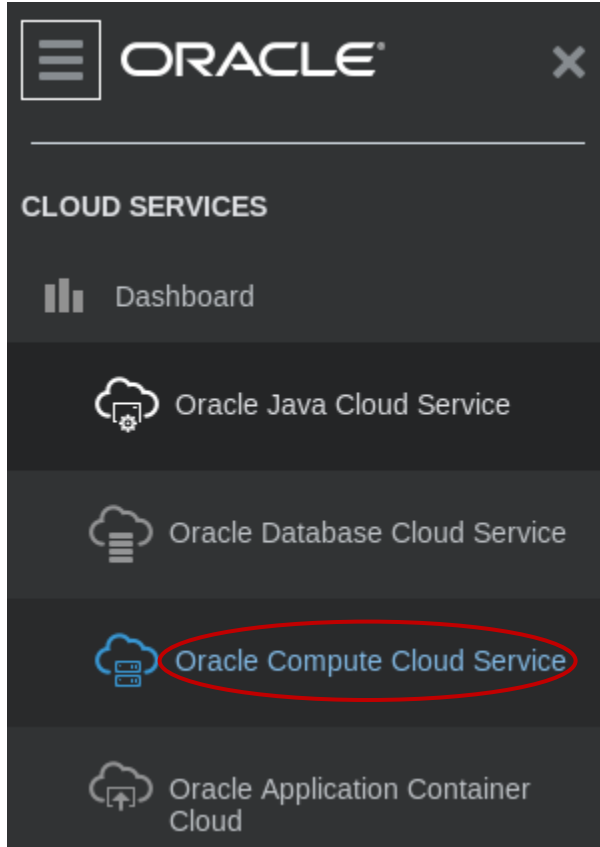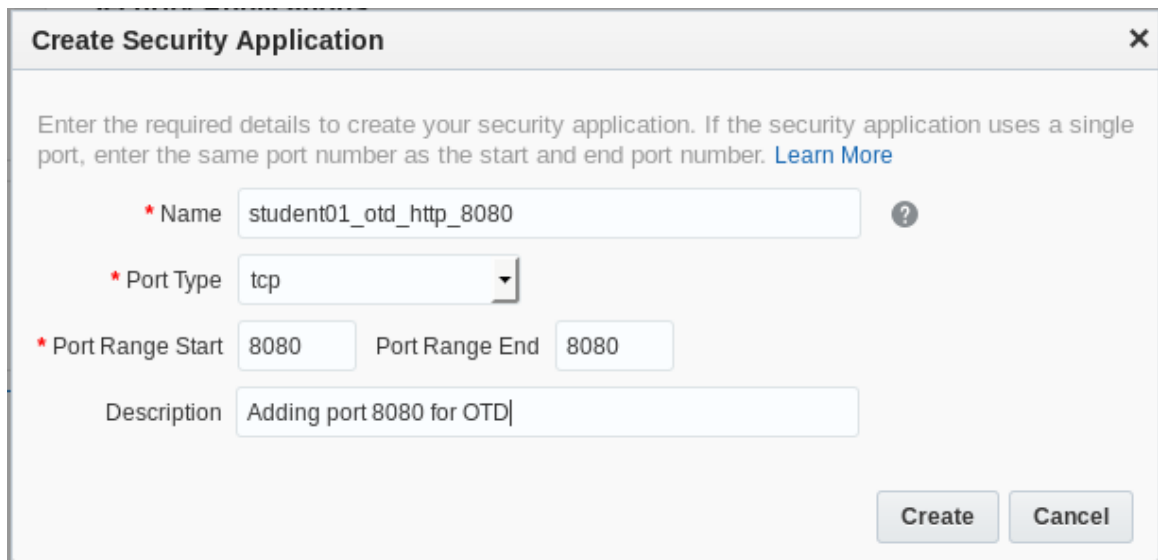
☐ Select the **Network** tab:

☐ On the left side of the page select the **Security Applications** section:

☐ Click the **Create Security Application** button.

☐ Name it **studentXX_otd_http_8080** (where XX is your student ID), port type **tcp** and port range **8080 to 8080**

☐ Click **Create**.

☐ Now select the **Security Rules** section:

Security Rules

24	18	▶
Security Rules	Enabled	
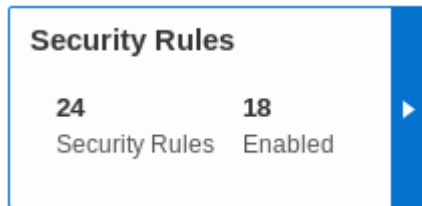
☐ Click the **Create Security Rule** button.

Create Security Rule
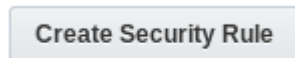
☐ Enter/Select the following:

```
Name:     studentXX_otd_http_8080 (where XX is your student ID)
Status:         Enabled
Security Application:   studentXX_otd_http_8080
Source:         Security IPLists
                public-internet
Destination:   Alpha01A-JCS/lb/ora_otd
```

　　NOTE: be sure to select the **ora_otd** entry for your JCS instance.

Create Security Rule   ✕

Enter the name of your security rule. The rule is enabled by default, but you can disable it until you are ready to use it. You must specify the security application and the source and destination security lists or security IP lists to which the security rule will apply. Learn More

* Name	student01_otd_http_8080
Status	Enabled
* Security Application	student01_otd_http_8080
* Source	○ Security Lists
	⦿ Security IP Lists
	public-internet
* Destination	Alpha01A-JCS/lb/ora_otd
Description	

Create   Cancel

☐ Click **Create**.

☐ In the browser, open up a new tab and test the configuration on port 8080 by using the "sayHello" application you deployed and tested back in Lab 200. Substitute your Load Balancer IP and Student-ID. (**Make sure the protocol is HTTP**).

http://<your-LB-IP>:8080/AlphaOffice/jersey/AlphaOfficeAccess/Student<your-student-ID>/sayHello

⬅ ⊕ 129.152.146.160:8080/AlphaOffice/jersey/AlphaOfficeAccess/Student10/sayHello

☁ Enterprise Cloud Co...   ⬤ Oracle Cloud Help C...   ☐ getProducts8081   ☐ sayHello8081

John Smith - You have deployed a REST api to the Oracle Public Cloud
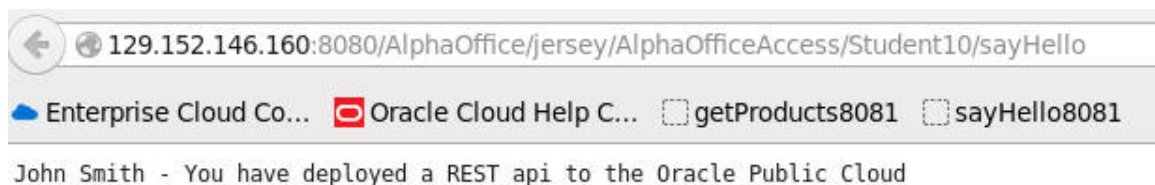
Test Mobile Application via Android Tablet Emulator

STEP 3:   Load, startup the Android Emulator

☐   If you have not already done so, import the supplied Android Emulator VM into Virtual Box using **File➔Import Appliance**. Browse to the location of where you put the .ova file (**AndroidTablet4.4_8080_V5.ova**)
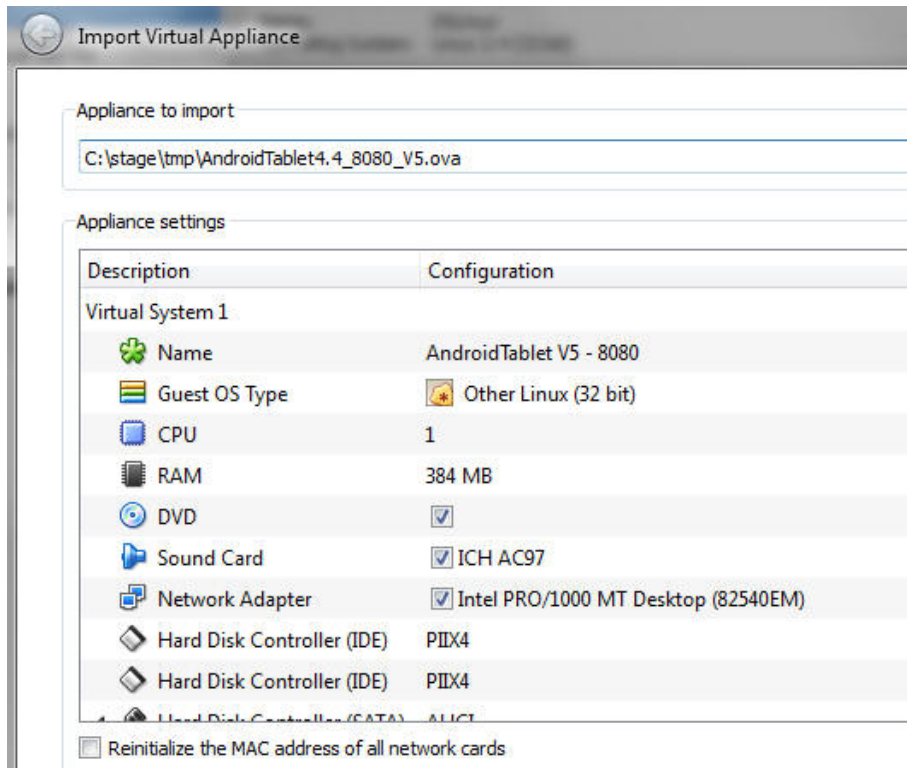

☐   Start the Android tablet emulator VM. After it's loaded, you should see the following screen:
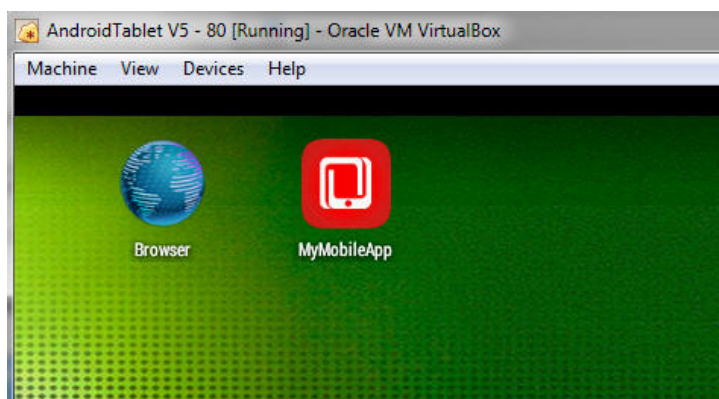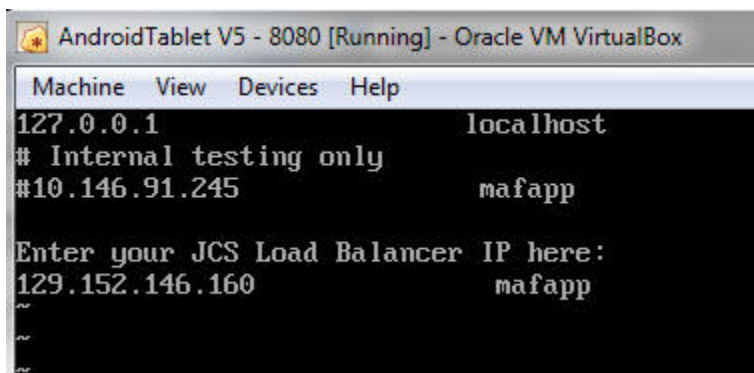

☐   You'll need the put your Load Balancer IP into the **/system/etc/hosts** file before testing the Mobile app. **Click your mouse into the Emulator so it takes focus** (pressing the right-CTRL key takes you out). **Hold down the left-ALT**

key and press F1 (**NOTE: On MAC's, hold down the Command-ALT keys together and press F1**).
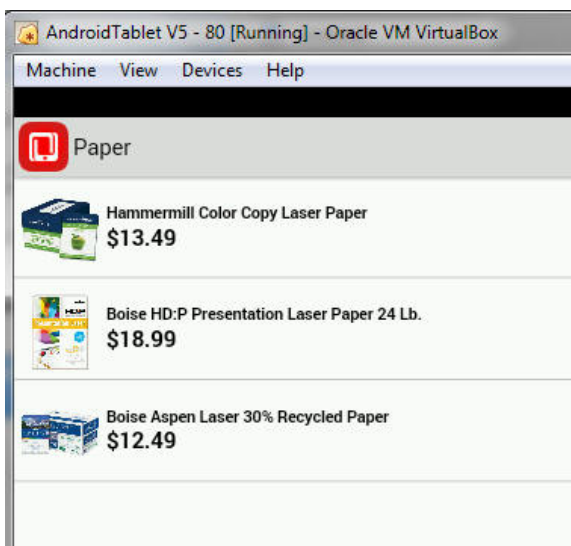
☐ At the # prompt, type "**vi /system/etc/hosts**"
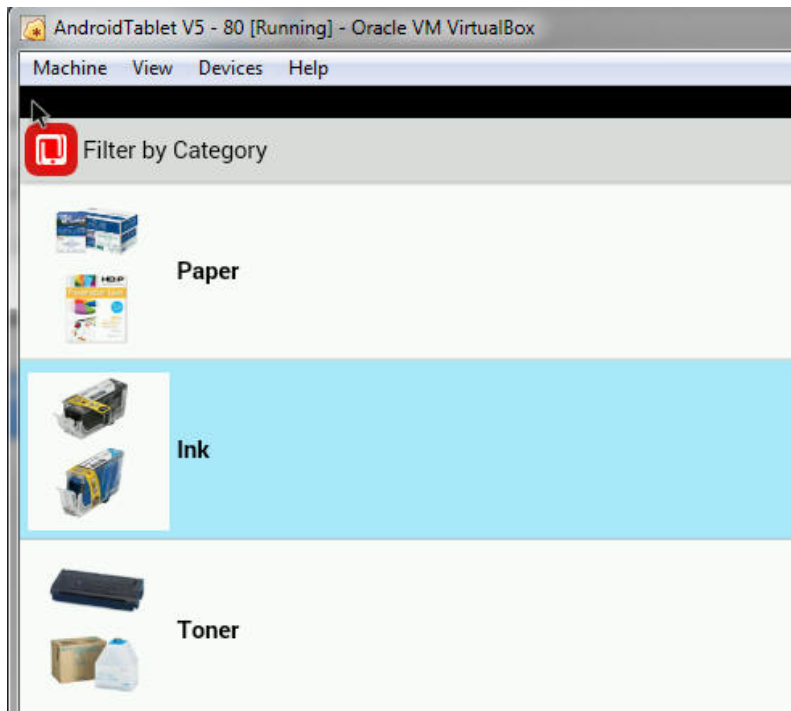
```
A N D R O I D root@x86:/ # vi /system/etc/hosts_
```
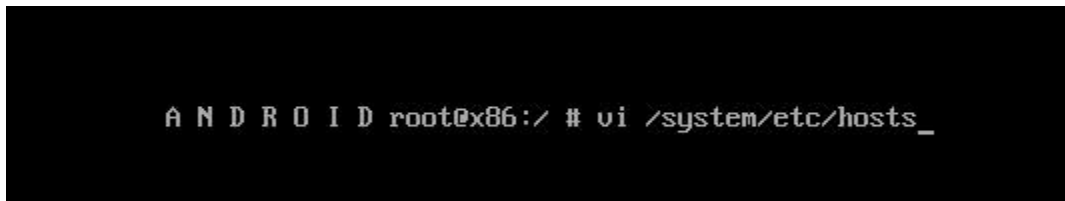
☐ Edit the hosts file **substituting your Load Balancer IP** in place of the 129.152.146.73 entry that is already there. Using our example, we have changed the entry to (129.152.146.160):
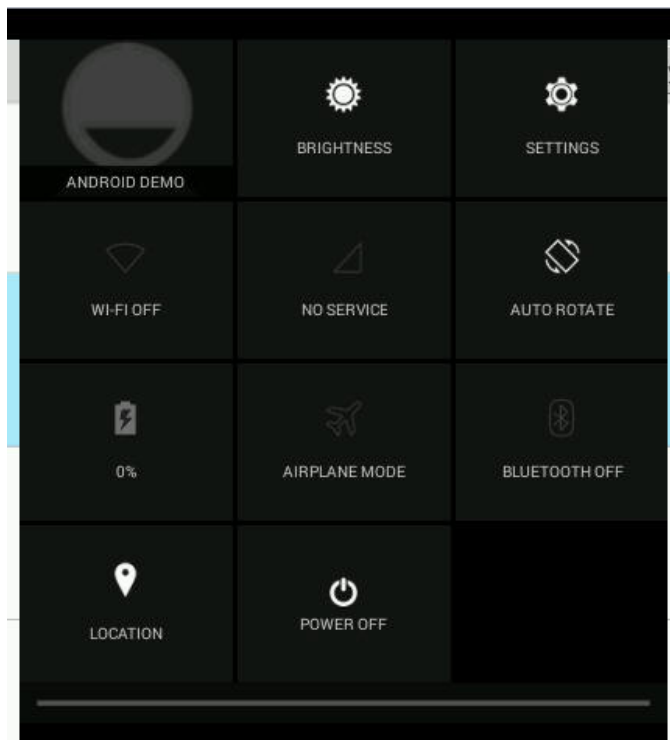
```
AndroidTablet V5 - 8080 [Running] - Oracle VM VirtualBox
Machine   View   Devices   Help
127.0.0.1                    localhost
# Internal testing only
#10.146.91.245               mafapp

Enter your JCS Load Balancer IP here:
129.152.146.160              mafapp
~
~
~
```

☐ **Save** the file and **hold down the left-ALT key and press F7** (**NOTE: On MAC's, hold down the Command-ALT keys together and press F7**). This should get you back to the main tablet screen.

☐ Click the **MyMobileApp** icon. If all goes well it will connect to your JCS instance and makes REST calls to the application you deployed in Lab 200.

```
AndroidTablet V5 - 80 [Running] - Oracle VM VirtualBox
Machine   View   Devices   Help

[D] Paper

      Hammermill Color Copy Laser Paper
      $13.49

      Boise HD:P Presentation Laser Paper 24 Lb.
      $18.99

      Boise Aspen Laser 30% Recycled Paper
      $12.49
```
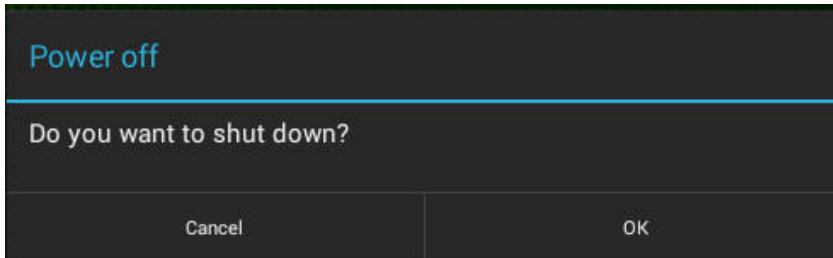
☐ When you're done testing, you can **shutdown** the emulator VM by clicking on and holding the top right hand side of the black bar at the top of the screen, and dragging the option menu all the way down. Select **POWER OFF**.

☐ Select **OK** to power off (shutdown the VM).

Power off

Do you want to shut down?

Cancel   OK

☐ This Lab is completed.