

# Installing and configuring the VTN Appliance

## version 0.9.3

### Step 1:

Download and install VirtualBox  
(<https://www.virtualbox.org/wiki/Downloads>).

*\*Note: the appliance format chosen is suitable for use in VMware products also. These instructions are for VirtualBox, see your VMware manuals for using an OVF appliance in ESXi, Workstation, etc.*

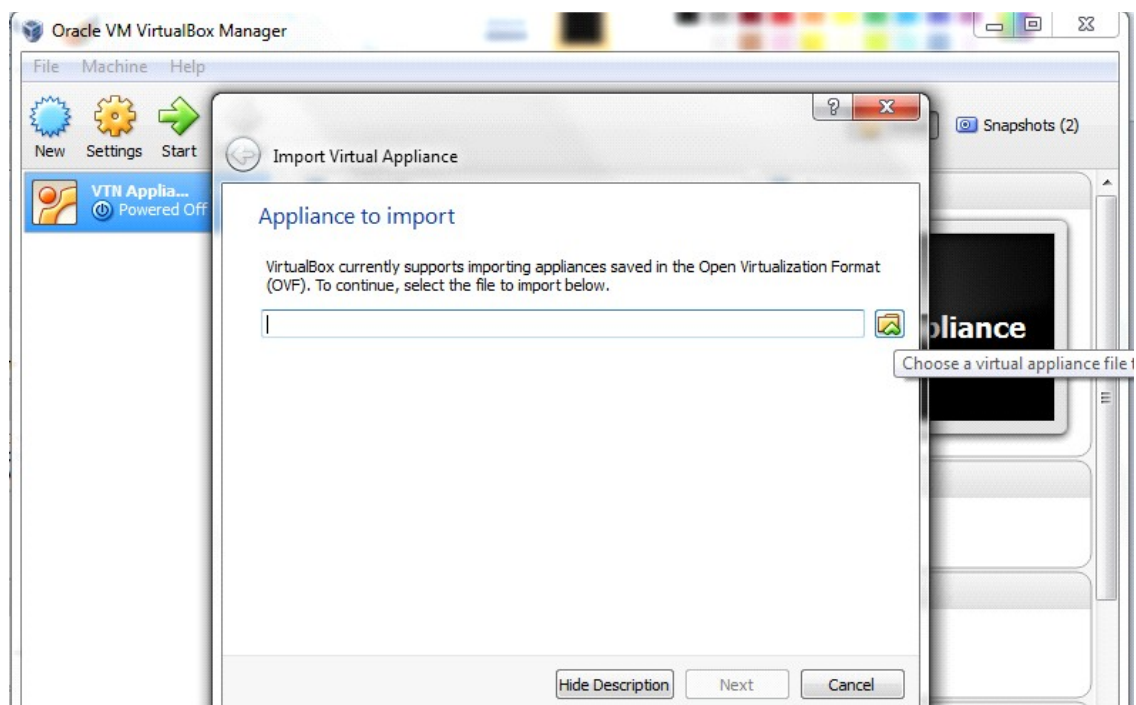
### Step 2:

Download the .ova from the EPRI FTP site.

### Step 3:

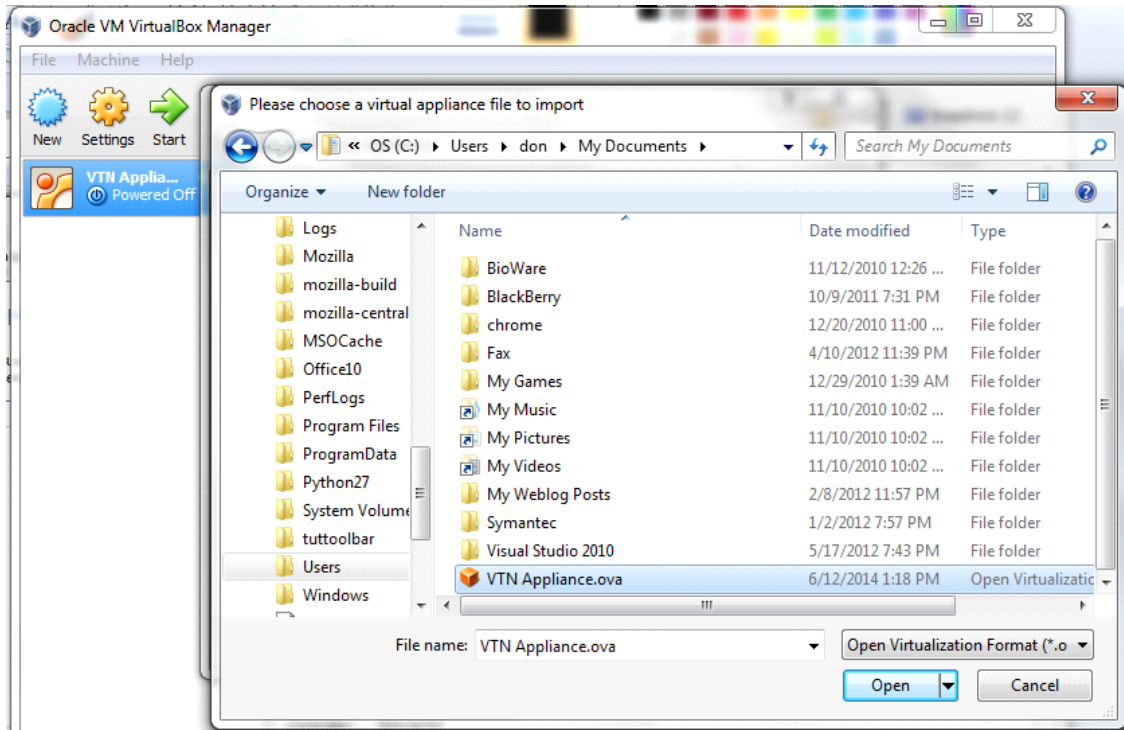
In VirtualBox, open the File menu and choose "import appliance". The following dialog will appear.

Click on the folder to the right of the text box to open the file dialog.



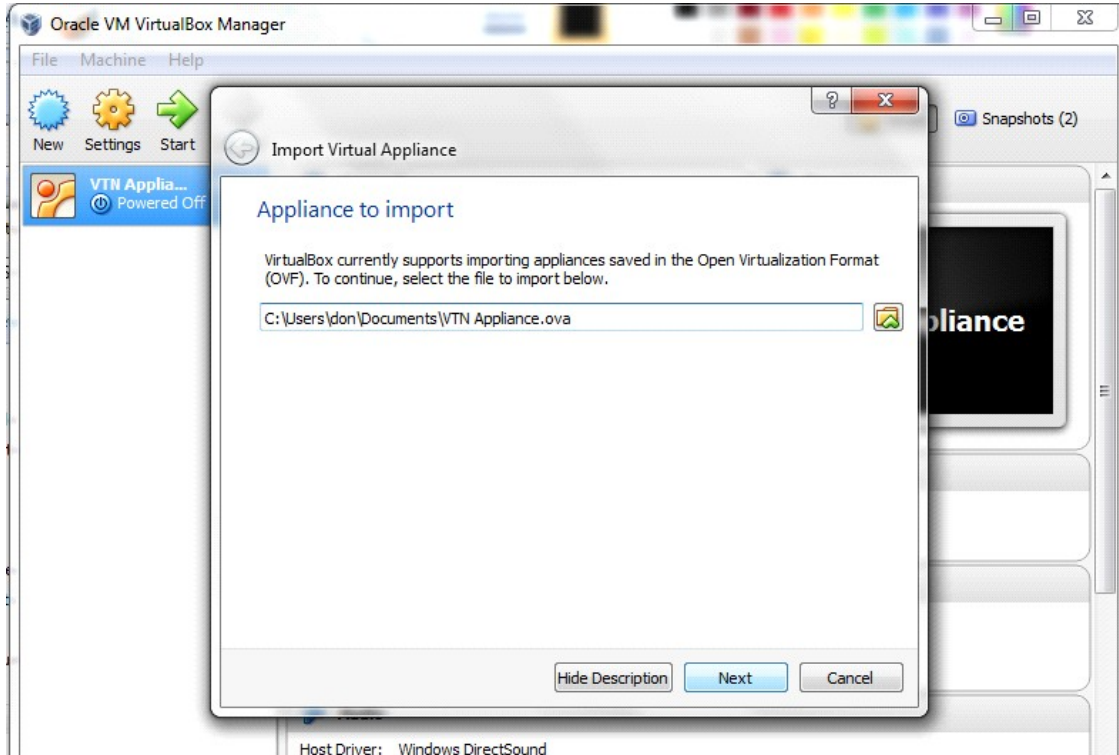
#### Step 4:

Locate the file "VTN Appliance.ova" on your hard drive, select it, and click "Open".



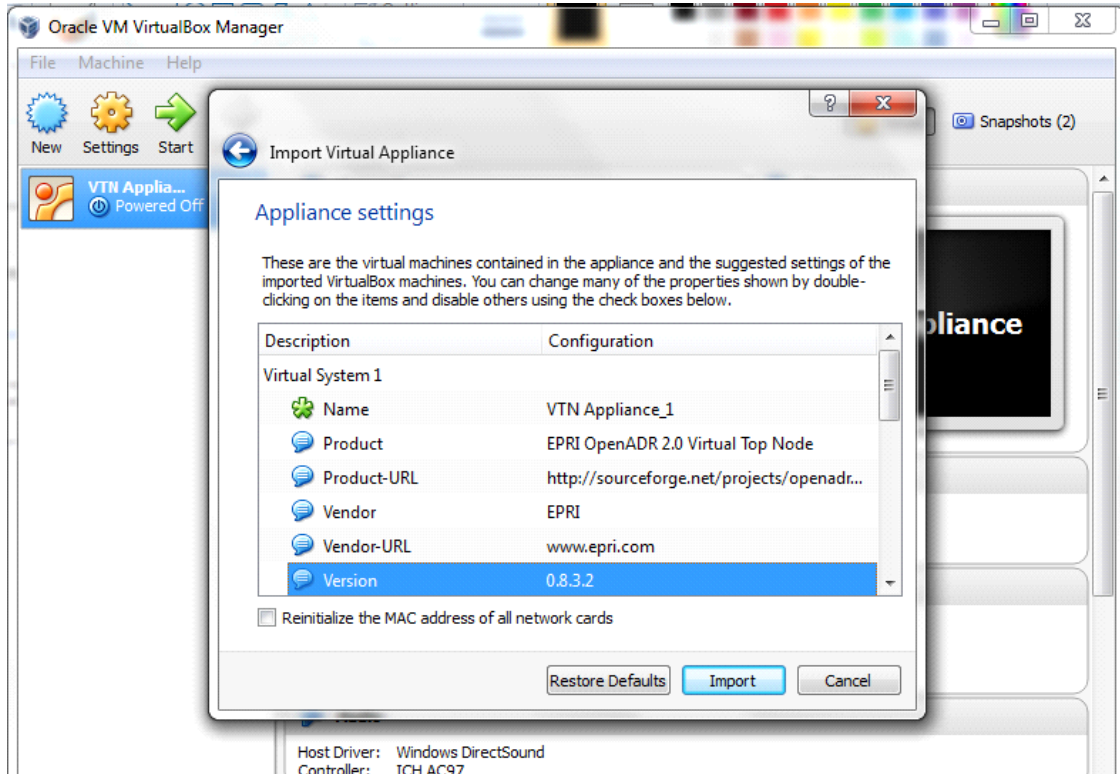
#### Step 5:

In the "Import Virtual Appliance" Dialog, click "Next".



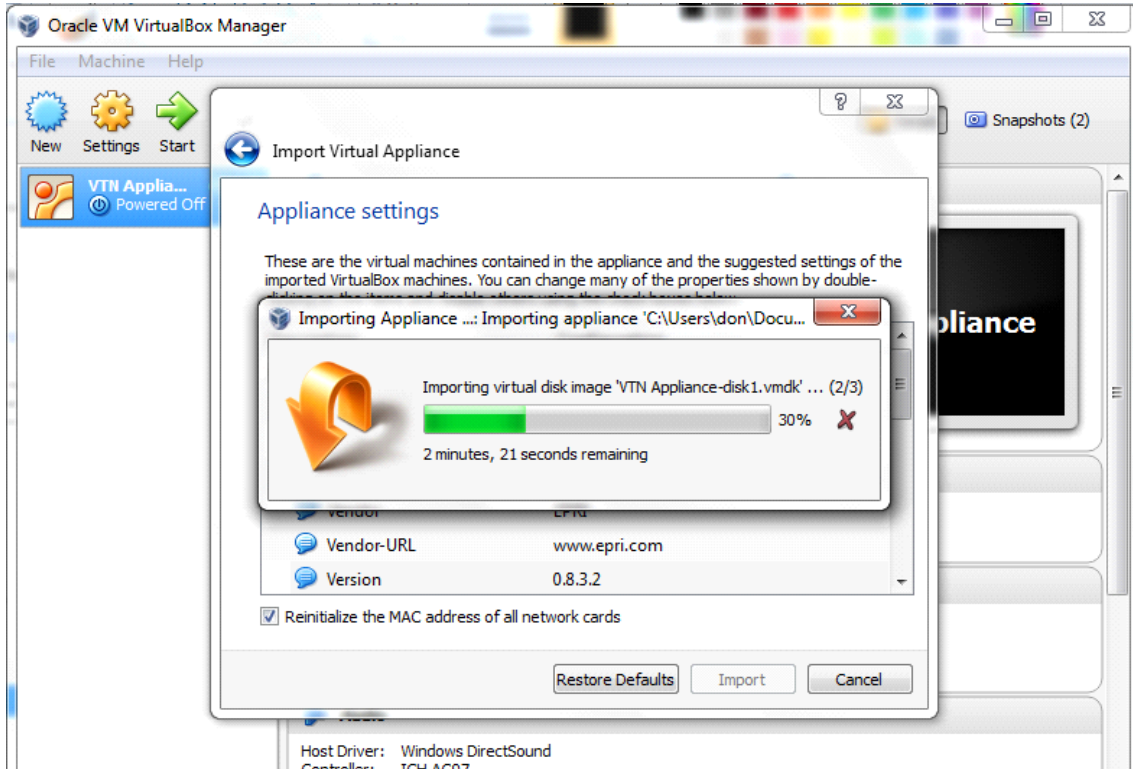
### Step 6:

You will be presented with a dialog showing the settings for the appliance. You may tweak the hardware settings as desired. We *Strongly* suggest you do not lower the memory requirement (1.5 Gigabytes). If this is not the first installation on your network, you will need to check the "Reinitialize the MAC address of all network cards" box to avoid low level networking conflicts.



### Step 7:

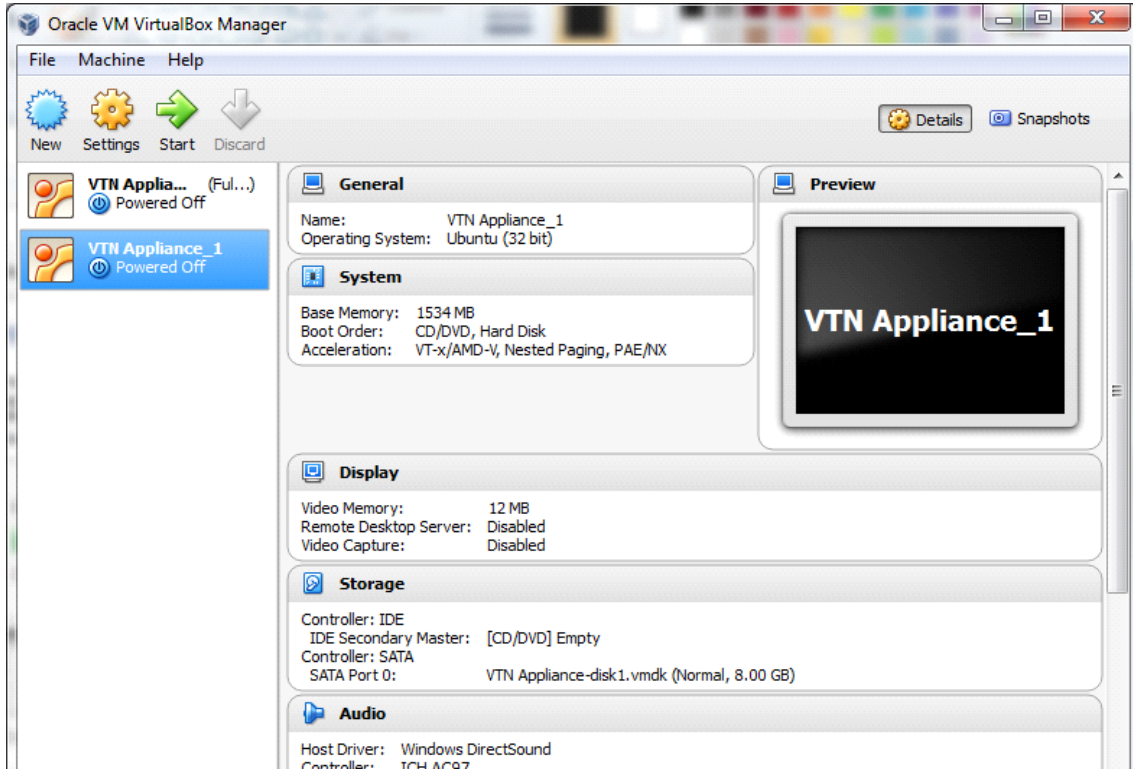
On the above dialog, click "Import". VirtualBox will import the image. Be patient, it is a large image, and will take a few minutes.



### Step 8:

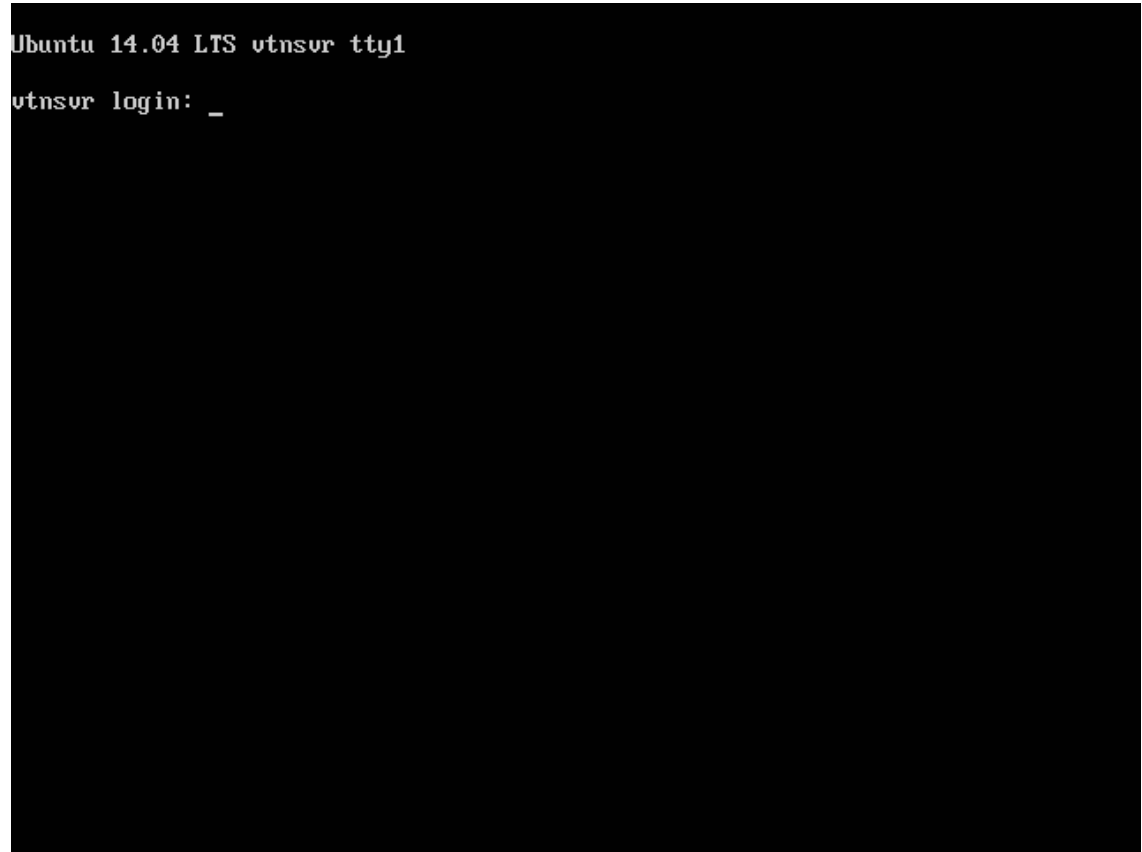
Once the import is completed, the device will be in your list of Virtual Machines. select it and you will see the options.

Click Start on the menubar above the list of virtuals.



The machine will start up in the manner that any Ubuntu machine will. When the boot up sequence is done, you should see the screen below.

*Note:* If the top of your terminal window has messages about mouse and keyboard, click the X on each message to remove them. They are merely informational, and obscure the login prompt.

A terminal window with a black background and white text. The text shows the Ubuntu 14.04 LTS login prompt.

```
Ubuntu 14.04 LTS vtnsvr tty1
```

```
vtnsvr login: _
```

**Step 9:**

Log in to the VM with the username epri and the password epri.

```
Ubuntu 14.04 LTS vtnsrv tty1

vtnsrv login: epri
Password:
Last login: Thu Jun 12 12:55:18 CDT 2014 on tty1
Welcome to Ubuntu 14.04 LTS (GNU/Linux 3.13.0-24-generic i686)

 * Documentation:  https://help.ubuntu.com/

System information as of Thu Jun 12 13:39:39 CDT 2014

System load:  0.87               Processes:            80
Usage of /:   46.4% of 6.01GB    Users logged in:     0
Memory usage: 2%                IP address for eth0: 192.168.0.155
Swap usage:   0%

Graph this data and manage this system at:
https://landscape.canonical.com/

epri@vtnsrv:~$
```

### Step 10:

For most installs, setting the network information is obviated by using DHCP, simply run `ifconfig` to get the IP address of `eth0`.

Since your network is not the same as the network on which the device was deployed, we have turned on DHCP for the server. If you do not have DHCP active on the network it is attached to (the primary network of the computer VirtualBox is running on), then you will have to edit `/etc/network/interfaces` to set the ethernet information.



```

System information as of Thu Jun 12 13:39:39 CDT 2014

System load:  0.87          Processes:           80
Usage of /:   46.4% of 6.01GB Users logged in:      0
Memory usage: 2%          IP address for eth0: 192.168.0.155
Swap usage:   0%

Graph this data and manage this system at:
https://landscape.canonical.com/

epri@vtnsrv:~$ ifconfig
eth0      Link encap:Ethernet  HWaddr 08:00:27:ce:4a:90
          inet addr:192.168.0.155  Bcast:192.168.0.255  Mask:255.255.255.0
          inet6 addr: fe80::a00:27ff:fece:4a90/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:631 errors:0 dropped:0 overruns:0 frame:0
          TX packets:266 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:62112 (62.1 KB)  TX bytes:17228 (17.2 KB)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:65536  Metric:1
          RX packets:81 errors:0 dropped:0 overruns:0 frame:0
          TX packets:81 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:34005 (34.0 KB)  TX bytes:34005 (34.0 KB)

epri@vtnsrv:~$

```

## Step 11:

Start the server by running it with start -

**sudo start torquebox**

You will be prompted for the password associated with user epri - it is epri, as mentioned above. Toruquebox will take a few minutes to start.

```

Usage of /: 46.4% of 6.01GB  Users logged in: 0
Memory usage: 2%           IP address for eth0: 192.168.0.155
Swap usage: 0%

Graph this data and manage this system at:
https://landscape.canonical.com/

epri@vtnsr:~$ ifconfig
eth0      Link encap:Ethernet  HWaddr 08:00:27:ce:4a:90
          inet addr:192.168.0.155  Bcast:192.168.0.255  Mask:255.255.255.0
          inet6 addr: fe80::a00:27ff:fece:4a90/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:631 errors:0 dropped:0 overruns:0 frame:0
          TX packets:266 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:62112 (62.1 KB)  TX bytes:17228 (17.2 KB)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:65536  Metric:1
          RX packets:81 errors:0 dropped:0 overruns:0 frame:0
          TX packets:81 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:34005 (34.0 KB)  TX bytes:34005 (34.0 KB)

epri@vtnsr:~$ sudo start torquebox
[sudo] password for epri:
torquebox start/running, process 1214
epri@vtnsr:~$

```

## Step 12:

From another machine (including the host VirtualBox is installed on), enter the address of this machine into a browser. The form is:

[http://\[address found for eth0 above\]:8080](http://[address found for eth0 above]:8080)

You should be presented with the login screen. If you are not, return to the appliance console, and type:

```
curl localhost:8080
```

If you get an error, or you get a blank result, either torquebox is still starting (it can take a couple of minutes), or there is a problem with your OVA. If you get a valid result, try from another machine again, if it works, torquebox was still booting up when first you tried it. If it still fails, standard IP networking troubleshooting needs to be applied.

## Step 13:

EPRI OADR x +

192.168.12.3:8080/login

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not signed in Log in About

### Please Login

User Name

admin

Password

\*\*\*\*\*

☐ I agree to the terms of [the EPRI software agreement.](#)

Login

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**Figure 1: VTN Login Screen**

The default login credentials are:

**user:** admin

**password:** testing.

After logging in, you'll be forwarded to the dashboard:

The screenshot shows a web browser window with the address bar displaying '192.168.12.3:8080/dashboard'. The browser's address bar and tabs are visible at the top. The main content area is divided into a sidebar on the left and a main panel on the right. The sidebar contains two sections: 'Admin Menu' and 'User Menu'. The 'Admin Menu' includes links for Accounts, VEns, Resource Types, Market Contexts, Groups, Events, Units, Schedules, VTN Parameters, and Test Case Prompts. The 'User Menu' includes links for Account Settings, VEns, Dashboard (highlighted), and Download VEN. The main panel displays the EPRI logo and the text 'ELECTRIC POWER RESEARCH INSTITUTE'. Below this, it shows 'Logged in as admin' with links for 'Log out' and 'About'. The main content area contains two data tables. The first table is titled 'Dashboard: TH\_VEN (offline) ()' and has columns for Event ID, Start Time, Duration (minutes), and Status. The second table is titled 'Dashboard: Test\_VEN\_Name (offline) ()' and has the same columns. Below the tables, it says 'Last Refreshed: September 04, 2014 12:26' and 'Copyright © 2014 EPRI'.

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Logged in as **admin** | [Log out](#) | [About](#)

**Admin Menu**

- [Accounts](#)
- [VEns](#)
- [Resource Types](#)
- [Market Contexts](#)
- [Groups](#)
- [Events](#)
- [Units](#)
- [Schedules](#)
- [VTN Parameters](#)
- [Test Case Prompts](#)

**User Menu**

- [Account Settings](#)
- [VEns](#)
- [Dashboard](#)**
- [Download VEN](#)

Dashboard: TH\_VEN (offline) ()

Event ID	Start Time	Duration (minutes)	Status
----------	------------	--------------------	--------

Dashboard: Test\_VEN\_Name (offline) ()

Event ID	Start Time	Duration (minutes)	Status
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Last Refreshed: September 04, 2014 12:26

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## Figure 2: Dashboard

The VTN manual is available on sourceforge:

(<http://sourceforge.net/projects/openadr2vtn/files/v1.0/1026755%20OpenADR%202%200%20Open%20Source%20Virtual%20Top%20Node%20-%20VTN%20Users%20Manual%20V0%202.pdf/download>)

