

WA2503 Hadoop Programming on the Hortonworks Data Platform

Lab Setup Guide

Web Age Solutions Inc.

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Part 1 - Minimum Hardware Requirements

The Lab server is a 64-bit VM that requires a 64-bit host OS and a virtualization product that can support a 64-bit guest OS. **This VM uses 8 GB of total RAM and 2 CPU.** The total system memory required varies depending on the size of data sets used in labs and on the other processes that are running in the VM.

- 10 GB RAM
- 80 GB Hard Disk

Part 2 - Minimum Software Requirements

- Windows Vista / 7 - 64 bit
- VMware player 6.x or higher
- Chrome

Part 3 - Software Provided

You need the following files:

- **WA2517.part1.rar**
- **WA2517.part2.rar**
- **WA2517.part3.rar**

__1. Note: WA2503 uses WA2517 software.

Part 4 - Preparation

__1. Extract the **WA2517.part1.rar** to C:\ using a zip utility as WinZip, WinRaR, 7 zip or similar.

__2. Verify the following folders were created:

- C:\HDP_2.3.2
- C:\LabFiles
- C:\Software

__3. Verify the following files were created:

- **C:\Software\putty.exe**

__4. Download and install the latest Google Chrome browser from:

<https://www.google.com/intl/en/chrome/browser>

__5. Create a short-cut on the desktop pointing to *C:\Software\Putty\putty.exe*



Note: Every student in the class will need a dedicated Lab Server. So the class setup will require as many Lab Servers as there are students in the class. In other words, you will need to perform this setup as many times.

It is recommended to have each Lab Server VM installed on a separate physical machine, although they can be collocated as long as their *Network Connectivity* is setup with the *Bridged* option (see details further in the document).

Part 5 - Installing the VMWare image

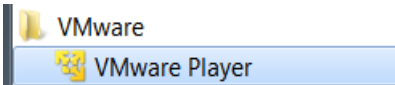
__1. Download the VMware player **6.x** or higher from the VMware website using the following link:

<http://www.vmware.com>

__2. Install the VMware player accepting all the defaults during the installation.

__3. Restart the computer.

__1. From the Start menu, select **All Programs > VMware > VMware Player**.



__2. If prompted to download a new version of VMware player decline the update.

__3. Press **Ctrl-O**.

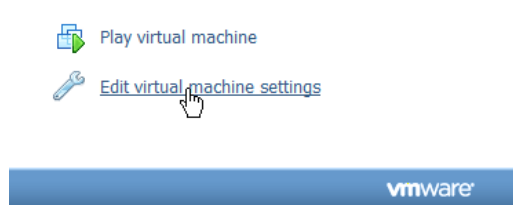
The *Open Virtual Machine* dialog opens

__4. Locate and select the **HDP_2.3.2.vmx** file located under the **C:\HDP_2.3.2** folder and click **Open**.

The **HDP_2.3.2** menu option will appear on the list of available virtual machines.



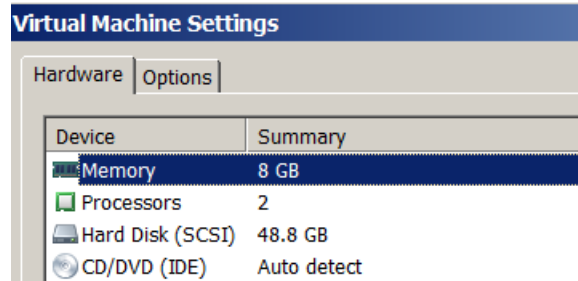
__5. Click **Edit virtual machine settings** at the bottom of the VMWare Player



The *Virtual Machine Settings* screen opens with the **Hardware** tab opened by default.

__6. Change the Memory VM size attribute to **8 G**

__7. Set the Number of Processors VM attribute to **2**

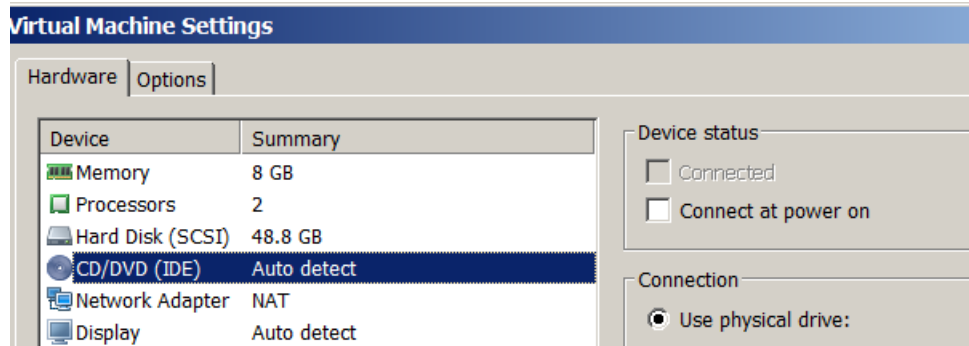


__8. The **Network Adapter** VM attribute can be configured for the **Bridged** or **NAT** connection options.

- ✓ As a rule of thumb, use **NAT** for the **VM** being installed locally on the physical student machine, use **Bridged** on remote machines. If these suggestions do not work, use the options that best suite your environment.
- ✓ The **NAT** options is preselected by default; for the **Bridged** option, see the **Setting Up the IP Address of the Lab Server VM** lab step at the end of the document.

__9. Click **CD/DVD (IDE) Device**

__10. Uncheck the **Connect at power on** (or keep it clear if it is already unchecked) *Device status*



__11. If **Floppy** is present, click **Floppy** (if this option is **not** present, skip to the next numbered step)

- ✓ Uncheck the **Connect at power on** (or keep it clear if it is already unchecked)

__12. If **Sound Card** is present, click **Sound Card** (if this option is **not** present, skip to the next to the next numbered step)

- ✓ Uncheck the **Connect at power on** (or keep it clear if it is already unchecked)

__13. If **Printer** is present, click **Printer** (if this option is **not** present, skip to the next to the next numbered step)

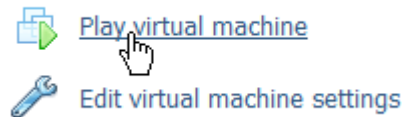
- ✓ Uncheck the **Connect at power on** (or keep it clear if it is already unchecked)

__14. Click **OK** at the bottom of the *Virtual Machine Settings Screen* to close it.



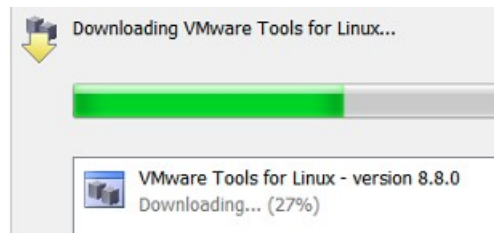
Part 6 - Running the VM

__1. Select the **HDP_2.3.2** virtual machine (it should already be pre-selected) and click **Play virtual machine**.



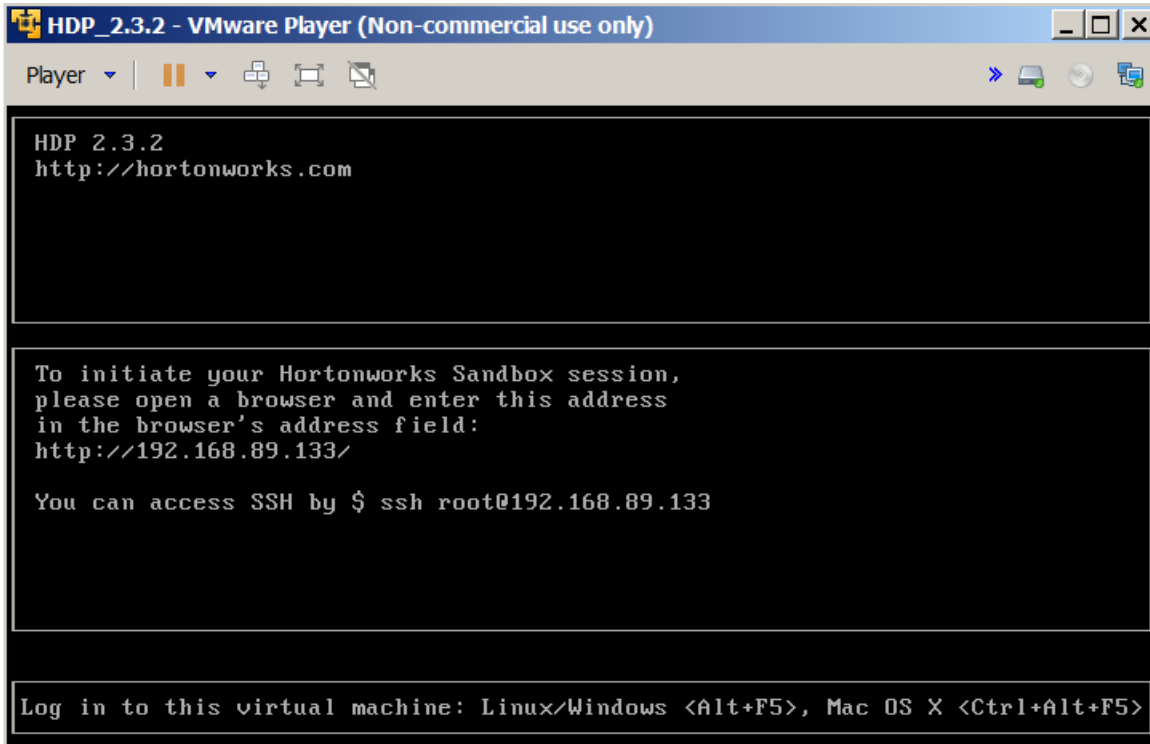
__2. Click "**I moved it**", if prompted.

__3. If you are prompted to download and install the VMware Tools for Linux, accepted the option.



Accept reasonable options if and when they appear.

VM bootstrapping may take some time; when it completes, you should be presented with the following screen:



Note: Don't use the above screen to click your mouse or enter your commands. Use any SSH client (e.g. PuTTY) to access the Lab Server VM.

The remote (SSH) access to the Lab Server VM is done under the **root** username with **\$123_doop** password.

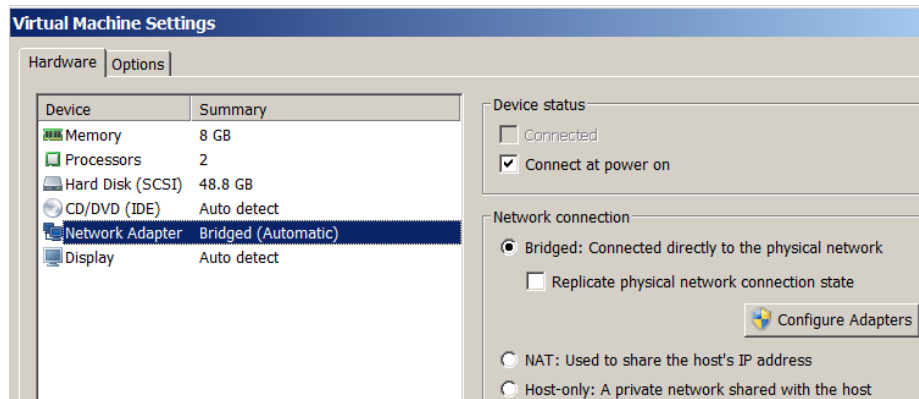
4. Write down the IP address of the Lab Server shown on the screen (it is **192.168.89.133** in our case).

The installation of the Lab Server virtual machine is completed.

The last Lab setup step is required if you want to set up the student VMs with the Bridged network configuration option.

Part 7 - Setting Up the IP Address of the Lab Server VM

If you setup your VM Network Adapter with the *Bridged* option as shown in the screen-shoot below, by default, you will have a DHCP leased IP address assigned to the Lab Server. It may be a convenient feature from the administration perspective, but will affect student SSH connections during the class as they will always be required to change the Lab Server IP address whenever the IP address of the Lab Server changes (IP lease may be configured to expire every day and the class runs for four days).



You have successfully installed the software for this course for the Server.

Part 8 - Summary

You have successfully installed the software for this course!

If you have any question please contact us by email at support@webagesolutions.com

From US and Canada call: 1-877-812-8887 ext. 26

International call: 416-406-3994 ext. 26