

# Installing hadoop 2.4.0 on Ubuntu server

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First of all, THESE ARE IMPORTANT FOR INDRODUCTION

**\*Ubuntu server 14.04**

**\*VM in VirtualBox with 1GB RAM**

**\*SWAP SPACE : SELECT more than 2 GB**

Up-to-date system.

[crayon-6684c69171c8f034199462/]

Moreover, it is advisable not to run Hadoop services through a general-purpose user, so the next step consists in adding a group hadoop and a user hadoop-user belonging to that group

[crayon-6684c69171c96244067485/]

### Installing Java

**The mentioned tutorials suggest a potentially unsafe procedure in order to install the jdk through apt-get,**

[crayon-6684c69171c99818421889/]

Finally, a couple of environment variables should be set up so that the java executables are in \$PATH and hadoop knows where java has been installed: this is easily accomplished adding

[crayon-6684c69171c9b149265741/]

at the end of /etc/profile <<< We need to edit that to set automatically **JAVA PATH**

[crayon-6684c69171c9d229818659/]

### Setup SSH

All communications with Hadoop are encrypted via SSH, thus the

corresponding server should be installed:

```
[crayon-6684c69171c9f614205599/]
```

and the `hadoop-user` must be associated to a key pair and subsequently granting its access to the local machine:

```
[crayon-6684c69171ca1855856867/]
```

Now `hadoop-user` should be able to access via `ssh` to `localhost` **without** ( WE SET THE PASS = "null")providing a password:

```
[crayon-6684c69171ca3040153163/]
```

## **Disable IPV6**

Hadoop and IPV6 do not agree on the meaning of `0.0.0.0` address,

LOOK AT : `??>>>> /etc/sysctl.conf`

```
[crayon-6684c69171ca5203258239/]
```

REBOOT SYSTEM

CONTROL

```
[crayon-6684c69171ca7890883133/]
```

## **Hadoop**

### **Download and install Hadoop**

Download `hadoop-2.4.0.tar.gz`, unpack it and move the results in `/usr/local`, adding a symlink using the more friendly name `hadoop` and changing ownership of the directory contents to the `hadoop-user` user:

```
[crayon-6684c69171ca9135283911/]
```

### **Setup the dedicated user environment**

**Switch to the `hadoop-user` user and add the**

**following lines at the end of ~/.bashrc:**

```
[crayon-6684c69171cab764164066/]
```

**To have** the new environment variables in place,

**1- reload .bashrc** through "**source .bashrc**"

**2- then open /usr/local/hadoop/etc/hadoop/hadoop-env.sh ,**

**3- uncomment the line setting JAVA\_HOME and set its value to the jdk directory:**

```
[crayon-6684c69171cae462813658/]
```

## **Configure Hadoop**

Before being able to actually use the hadoop file system it is necessary to modify some configuration files inside **/usr/local/hadoop/etc/hadoop**

All such files follow the an XML format, and the updates should concern the top-level node configuration (likely empty after the hadoop installation). Specifically:

- in **yarn-site.xml** :  
[crayon-6684c69171cb0246546623/]
- look in **core-site.xml**:  
[crayon-6684c69171cb2197487300/]
- look in **mapred-site.xml**  
[crayon-6684c69171cb4820577279/]
- nano **hdfs-site.xml**:  
[crayon-6684c69171cb6157335498/]

Run these commands.

```
[crayon-6684c69171cb8571366123/]
```

## **Formatting the distributed file system**

USER should be **hadoop user**

```
[crayon-6684c69171cba896177392/]
```

Find the these 2 file and run

**start-dfs.sh**

**start-yarn.sh**

[crayon-6684c69171cbc184071762/]

[crayon-6684c69171cbe266889923/]