HOW TO CREATE A CENTOS 7.0 VAGRANT BASE BOX

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This tutorial is aimed at allowing you to create a Vagrant base box which contains Centos 7.0. Vagrant allows you to create and share virtual machines with anybody. There are two ways of using Vagrant boxes, either you create them or you can import one. You can import one from the internet or any other medium. In this tutorial I will show you how to create your own Centos 7.0 Vagrant box. I usually create my own boxes as it allows me to only install the software that I need or want.

TOOLS YOU WILL NEED:

* VirtualBox – https://www.virtualbox.org/
* Centos 7.0 – http://www.centos.org/download/

LET'S BEGIN

1. If you haven't done so already, download and install VirtualBox (https://www.virtualbox.org/)

2. Download Centos 7.0 (http://www.centos.org/download/). For the purpose of this tutorial I will be using the NetInstall ISO, but you may use any other ISO. I selected the NetInstall because of it's small file size.

3. Create a new VM with **VirtualBox**. I have named mine **centos7-vagrant**.
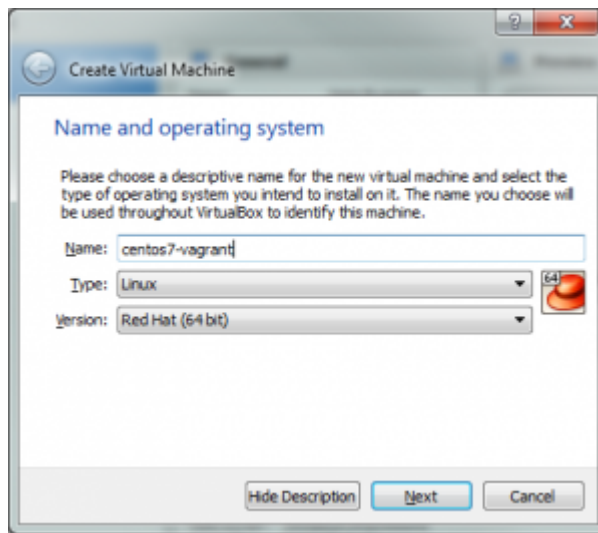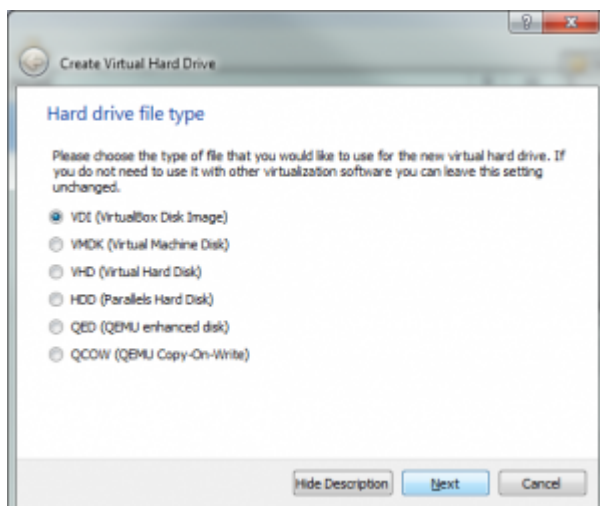
You may setup this box any way you want. As far as settings are concerned, I have selected the following settings:
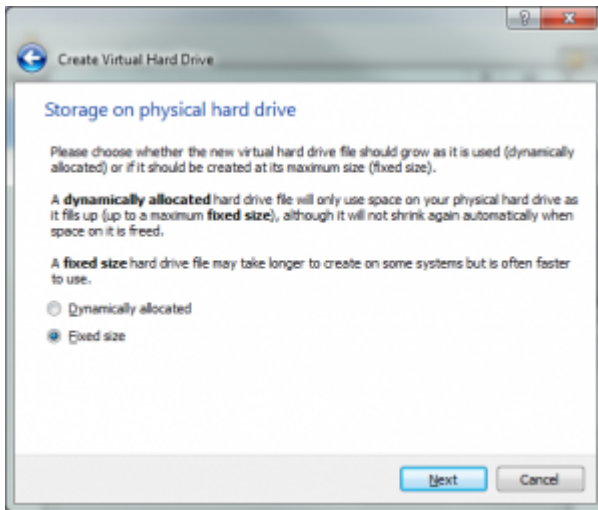
– Memory: 2GB

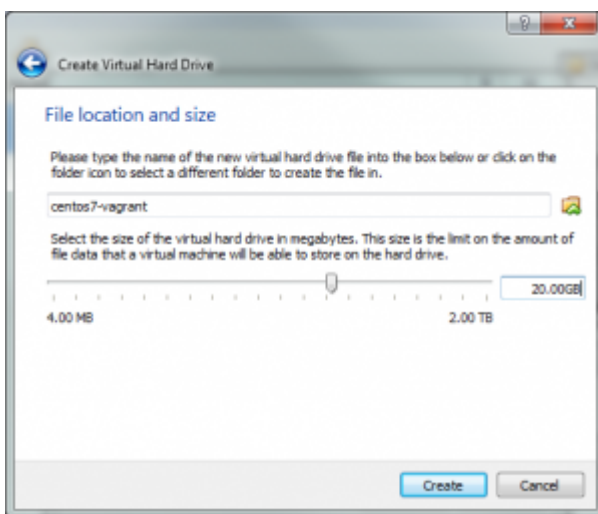– Hard Disk: 20GB fixed size
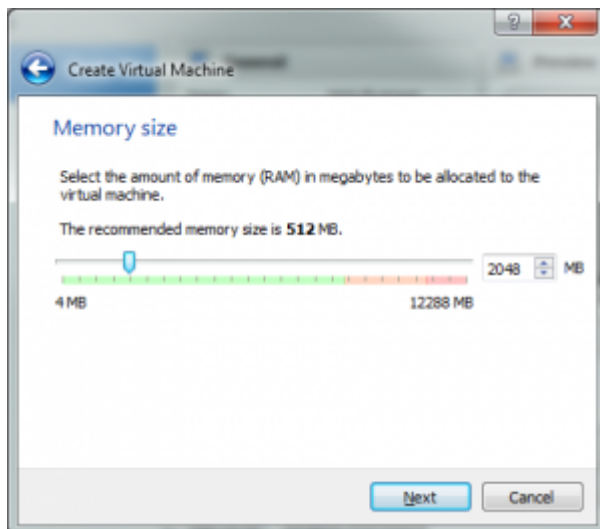
Memory Size

Hard drive file type

Storage on physical hard drive


File location and size

4. Once your VM has been created go ahead and boot it up. It will ask you for a start-up disk. In my case I downloaded the NetInstall ISO. So I browsed and select *CentOS-7.0-1406-x86_64-NetInstall.iso*
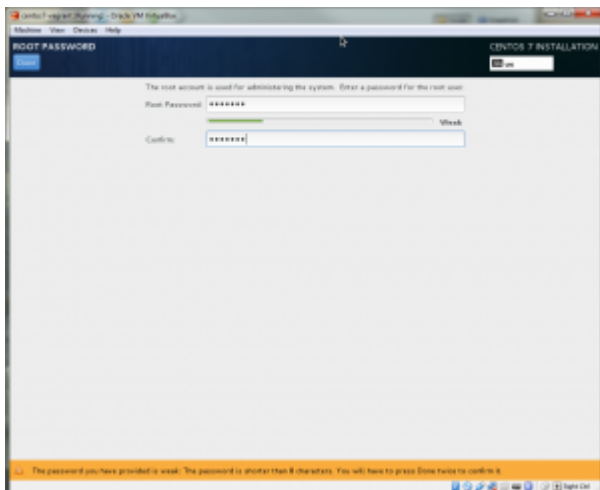

Select Startup Disk

5. Install Centos with any parameters you want. I selected a minimal install since I just want the basics and any special package that I need will be
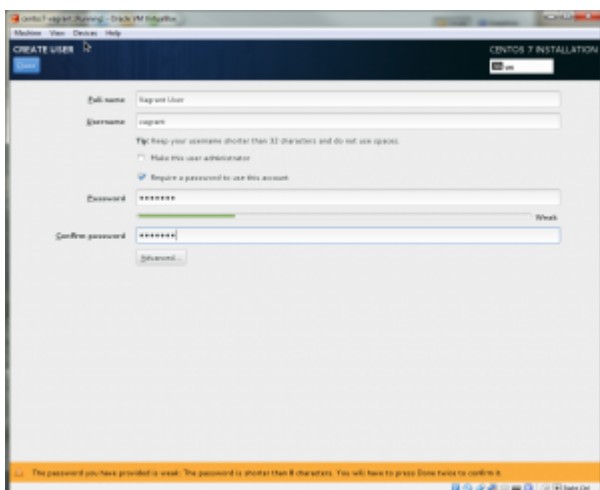
installed later.
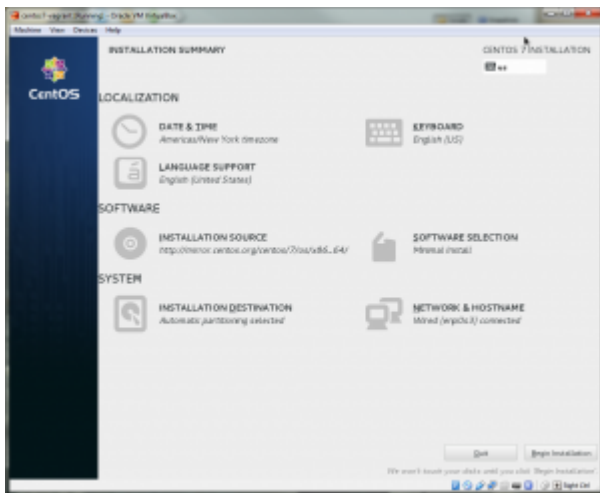
Installation Summary

6. Set the **_root_** password as "vagrant".

Root Password

7. Create the **_vagrant_** user. Set the username and password to "vagrant"

Create User

8. Once installation is finished and the VM restarts, login as **root**.

9. Now would be a good time to install the **VirtualBox** Guest Additions. **NOTE:** This is an optional step.

10. Now we need to install packages that are essential for **Vagrant** to operate within the VM.

```
1  yum install -y openssh-clients man git vim wget curl ntp
```

11. Let's enable some services at startup time. We need **ntpd** so that it sets the time up correctly every time you boot up the **Vagrant** box, and of course **sshd** in order to SSH in.

```
1  chkconfig ntpd on && chkconfig sshd on
```

12. Disable **iptables** as it really is not needed for a **Vagrant** box. It would just get in the way.

```
1  chkconfig iptables off && chkconfig ip6tables off
```

13. Set **SELinux** to permissive mode.

```
1  sed -i -e 's/^SELINUX=.*/SELINUX=permissive/' /etc/selinux/co
```

14. Comment out **requiretty** in **/etc/sudoers**. This will allow **Vagrant** to apply changes during startup.

```
1  sed -i 's/^\(Defaults.*requiretty\)/#\1/' /etc/sudoers
```

15. Add the **vagrant** user to **/etc/sudoers** file.

```
1  echo 'vagrant ALL=(ALL) NOPASSWD: ALL' >> /etc/sudoers
```

16. Create /etc/sysconfig/network-scripts/ifcfg-eth0 and add the following:

```
1  DEVICE=eth0
2  TYPE=Ethernet
3  ONBOOT=yes
4  NM_CONTROLLED=no
5  BOOTPROTO=dhcp
```

17. We must now add a public key for the **vagrant** user. You can use the default public key or create a custom one. You may find more information on how to create a custom vagrant public key in the following tutorial "Using custom Vagrant SSH public/private keys". For now we are going to use the readily available **vagrant** public key.

Create **.ssh** folder on the home directory:

```
1  mkdir /home/vagrant/.ssh && chmod 700 /home/vagrant/.ssh
```

Copy publick key:

```
curl
https://raw.githubusercontent.com/mitchellh/vagrant/master/keys/va
>> /home/vagrant/.ssh/authorized_keys
```

Set the correct permissions:

```
1  chmod 600 /home/vagrant/.ssh/authorized_keys
```

Make sure everything is owned by the correct use:

```
1  chown -R vagrant:vagrant /home/vagrant
```

18. Turn off the VM

```
1  shutdown -h now
```

19. To create your **Vagrant Box** you will need to package the VM you just created. The following command will package the VM into your home directory. You are free to change this directory by modifying the **–output** paramenter

```
1  vagrant package --output $HOME/centos7.box --base centos7-vag
```

The **–output** would be the destination of your **Vagrant Box** file, and **–base** is the name or UUID of the VM that was created using **VirtualBox**.

20. Create the **Vagrantfile**

```
1  vagrant init centos7
```

21. Start the **Vagrant** VM

```
1  vagrant up
```

If all the steps where followed correctly then your vagrant box is up and running. To login to the machine just do

```
1  vagrant ssh
```

G+1 0

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