Ansible Installation Guide

Installation Notes

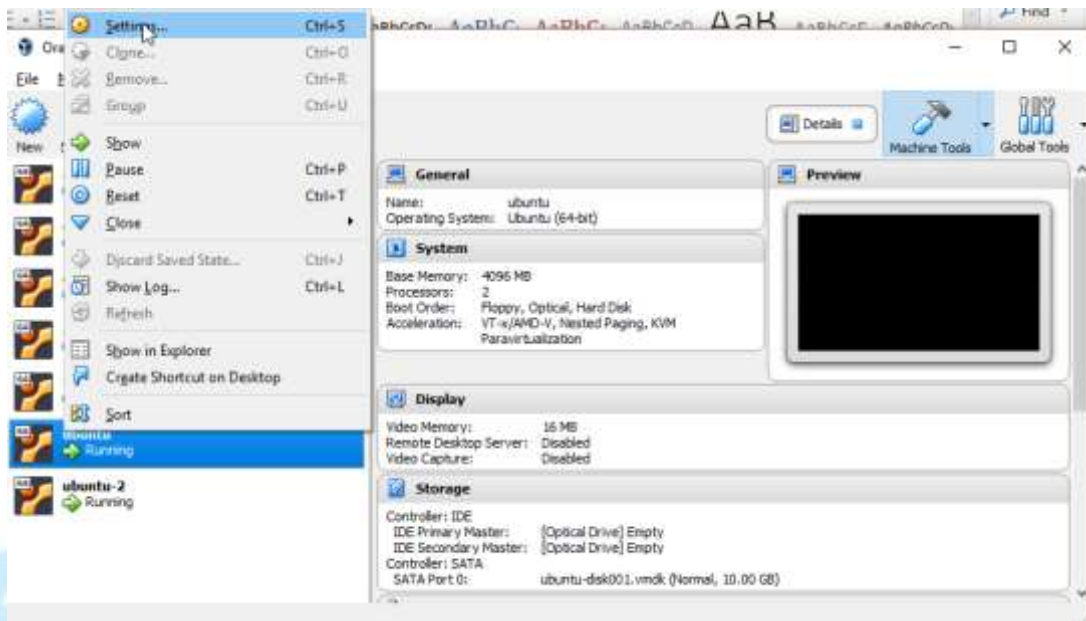edureka!
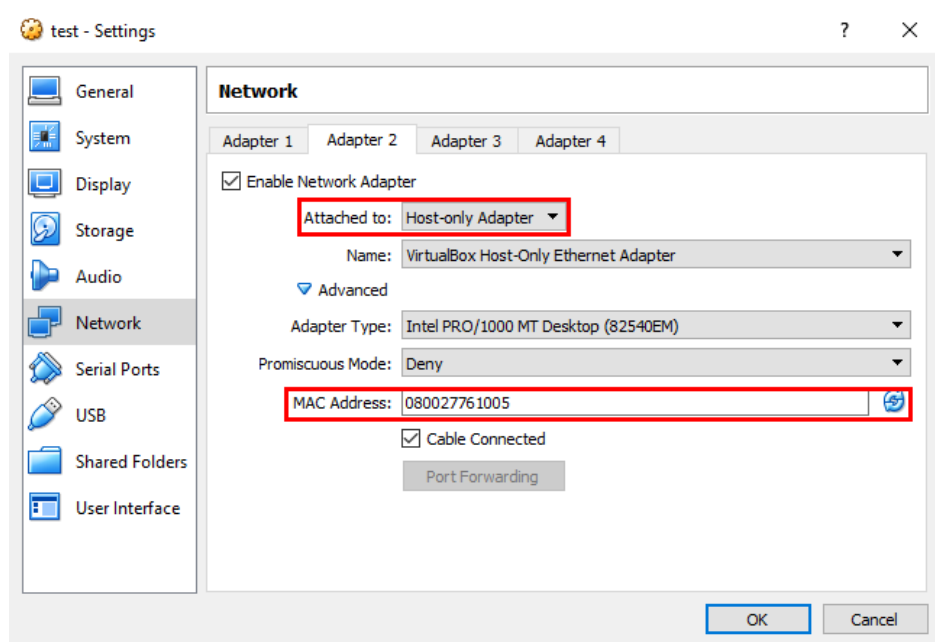
Version 6.0

Prerequisite:

Setup the Virtual machines before installing Puppet.

Step 1: Right click on the Machine and switch to Network tab

Step 2: Add 2nd adapter in the virtual machine settings and set it to Host-only Adapter

Note: Remember to change the MAC addresses of all the subsequent cloned machines for both the adapters.

Step 3: Now, for every machine, edit the interfaces file in the network folder to make the IP address static

Syntax: sudo vi /etc/network/interfaces

And add the following code to it:

```
auto enp0s8
iface enp0s8 inet static
address    <ip address>
```

Setting up SSH

- Ansible uses SSH to communicate between nodes

- To set up SSH install the openssh-server package on all of your machines

  Syntax: sudo apt-get install openssh-server

```
edureka@edureka:~$ sudo apt-get install openssh-server
[sudo] password for edureka:
Reading package lists... Done
Building dependency tree
Reading state information... Done
Suggested packages:
  ssh-askpass rssh molly-guard monkeysphere
```

- On the machine with ansible, generate the SSH key

  Syntax: ssh-keygen

```
edureka@edureka:~$ ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/home/edureka/.ssh/id_rsa):
Created directory '/home/edureka/.ssh'.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/edureka/.ssh/id_rsa.
Your public key has been saved in /home/edureka/.ssh/id_rsa.pub.
The key fingerprint is:
SHA256:5RsjnIk++cU7ELpQfgpkj9ReXWKNb/nf8MKJ97EbLvo edureka@edureka
The key's randomart image is:
+---[RSA 2048]----+
|          o      |
|         + o     |
|      .  o.+ .    |
|     + ooo=. +    |
|    + *.oS.+. .   |
|     +.=.oo +  o  |
|      o++ .+  o B.|
|       oo .....* B|
|        . .ooE.*o|
+----[SHA256]-----+
```

- Copy the generated SSH keys onto the hosts using copy id command

  Syntax: ssh-copy-id hostName

- Now, check the SSH connection using the **ssh** command

  Syntax: ssh <nodeName>

Installing Ansible

- Before installing ansible package add ansible repository to your system

  Syntax: sudo apt-add-repository ppa:ansible/ansible

- Run the update command before installing to update existing packages

  Syntax: sudo apt-get update

- Now install the ansible package

  Syntax: sudo apt-get install ansible

```
edureka@edureka:~$ sudo apt-get install ansible
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  python-cffi-backend python-crypto python-cryptography python-ecdsa python-enum34 python-httplib2 python-idna python-ipaddress
  python-jinja2 python-markupsafe python-paramiko python-pkg-resources python-pyasn1 python-setuptools python-six python-yaml sshpass
Suggested packages:
  python-crypto-dbg python-crypto-doc python-cryptography-doc python-cryptography-vectors python-enum34-doc python-jinja2-doc
  python-setuptools-doc
The following NEW packages will be installed:
  ansible python-cffi-backend python-crypto python-cryptography python-ecdsa python-enum34 python-httplib2 python-idna python-ipaddress
  python-jinja2 python-markupsafe python-paramiko python-pkg-resources python-pyasn1 python-setuptools python-six python-yaml sshpass
0 upgraded, 18 newly installed, 0 to remove and 300 not upgraded.
Need to get 4,030 kB of archives.
After this operation, 29.6 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
```

- You can check if you're on the latest version of ansible by running the version command

  Syntax: ansible --version

```
edureka@edureka:~$ ansible --version
ansible 2.4.3.0
  config file = /etc/ansible/ansible.cfg
  configured module search path = [u'/home/edureka/.ansible/plugins/modules', u'/usr/share/ansible/plugins/modules']
  ansible python module location = /usr/lib/python2.7/dist-packages/ansible
  executable location = /usr/bin/ansible
  python version = 2.7.12 (default, Nov 19 2016, 06:48:10) [GCC 5.4.0 20160609]
edureka@edureka:~$
```

- If for some reason an older version of ansible is installed on your system you can run the update command again to get the latest version

- Install Python libraries using

  Syntax: sudo apt-get install python

Setting up hosts

▪ To set up hosts you need to edit the **hosts** file in the ansible directory

Syntax: sudo nano /etc/ansible/hosts

```
edureka@edureka:~$ sudo nano /etc/ansible/hosts
edureka@edureka:~$
```

```
GNU nano 2.5.3                                    File: /etc/ansible/hosts

[appservers]
app1

[dbservers]
db1
```

▪ Change your directory to /etc/ansible

Syntax: cd /etc/ansible

```
edureka@edureka:~$ cd /etc/ansible
edureka@edureka:/etc/ansible$
```

▪ Now you can check if ansible's connection with your hosts in your inventory file is good
▪ Use the ansible's ping module to check whether or not ansible is connecting to hosts
  Syntax: ansible –m ping <hosts>

```
edureka@edureka:/etc/ansible$ ansible -m ping all
db1 | SUCCESS => {
    "changed": false,
    "ping": "pong"
}
app1 | SUCCESS => {
    "changed": false,
    "ping": "pong"
}
edureka@edureka:/etc/ansible$
```