

## Vagrant Installation & Lab Setup Instructions

### A. What is Vagrant?

Vagrant provides easy to configure, reproducible, and portable work environments built on top of industry-standard technology and controlled by a single consistent workflow to help maximize the productivity and flexibility of you and your team.

### B. Installation

#### Download and install VirtualBox and Vagrant as per your Operating System

1. Download (<https://www.virtualbox.org/wiki/Downloads>) and Install VirtualBox
2. Download (<https://www.vagrantup.com/downloads.html>) and Install Vagrant.

#### Important links:

1. <https://atlas.hashicorp.com/boxes/search> (for public vagrant boxes)
2. <https://www.vagrantup.com/docs/> (Vagrant Documentation)

### C. Working with Vagrant

Following steps will help you create vagrant lab setup:

1. Create a main folder for all your vagrant boxes (for example 'my\_vagrant\_lab')
2. Go into the folder and create another folder for each box (for example 'my\_node')
3. Navigate to the folder in powershell/cmd window
4. Run '**vagrant init**' as follows:

***'vagrant init hashicorp/precise32'***

*This will initiate vagrant box and create a '**vagrantfile**' in your project folder*

5. Run '**vagrant up**' to start the Vagrant instance.

This will create a '**vagrant**' folder alongside the vagrantfile. This folder contains all the supporting files for that vagrant instance.

6. Run '**vagrant status**' to make sure the box is in running state.

Sample output:

*PS C:\sk12k\VagrantBoxes\newdevbox> vagrant status*

*Current machine states:*

*default                  running (virtualbox)*

7. In order to log-in to the vagrant instance, simply type: **'vagrant ssh'**

*Note: this command might not work on Windows laptops. You will need to use PuTTY (or some other ssh client for windows) to log into your machine. One of the easiest ways is to install "GIT for windows", which gives you ssh capability on your laptop/desktop. Refer git documentation for more information.*

8. In order to exit from the machine, type **'exit'**

9. Make necessary changes in 'vagrantfile' and do a **'vagrant reload'**. Refer section D of this document (Sample Vagrantfile Entries) for more information.

10. To shut down the machine run **'vagrant halt'**

11. To delete the machine from your lab run **'vagrant destroy'**

*Note: All the above commands must be run from the directory which contains the Vagrantfile for the box you wish to work with.*

#### **D. Sample Vagrantfile Entries**

##### ***Syntax:***

```
config.vm.box = "box_name"  
config.vm.hostname = "hostname"  
config.vm.network "private_network", ip: "xx.xx.xx.xx"
```

##### ***Sample:***

```
config.vm.box = "nrel/CentOS-6.7-x86_64"  
config.vm.hostname = "chef-workstation"  
config.vm.network "private_network", ip: "172.28.128.5"
```