

HOW TO SETUP YOUR PENTESTING LAB USING VAGRANT

WHO AM I ?

- Student at Vit Chennai
- Speaker at Bsides,Null,Owasp
- Interested in Web,Mobile,Cloud and DevSecOps

www.joshuaajebaraj.com

WHATS TOPICS

- Basics of vagrant
- Vagrant boxes
- Basic commands
- Understanding `VagrantFile`
- vagrant provision
- vagrant networking
- Setting up the lab

OUTCOME OF SESSION

- Basic understanding of vagrant
- Lab setup

WHAT IS VAGRANT ?

- Tool for building and manage the Virtual Machines

WHY VAGRANT ?

- Easy to manage
- Easy to scale
- Different Virtual manager support
- Support provisioning

HOW VAGRANT HELPS ?

- Developer - easy to setup the development environment
- Operation - easy to scale up and scale down
- For everyone who lazy like me

BASIC VAGRANT BOX COMMAND

Box is something similar to the ova file

```
$ vagrant box add <box-name>
```

```
$ vagrant box list
```

boxes

BASIC VAGRANT COMMAND

\$ `vagrant init <box-name>` - initialize the
vagrantfile

\$ `vagrant up` - start the virtual machine

\$ `vagrant halt` - stops the virtual machine

\$ `vagrant ssh`- login into the machine using ssh

\$ `vagrant reload`- To reload the configuration

\$ `vagrant destroy`- delete the machine

UNDERSTANDING THE VAGRANTFILE

- Was written in *Ruby*
- Consist of basic configuration

BASIC COMPONENTS OF VAGRANTFILE

- Box
- Provider
- Shared Folder
- Network
- Provision

VAGRANT PROVISION

- Chef
- Bash
- Ansible

```
config.vm.provision "shell", path: "provision.sh"
```

```
$vagrant ssh
```

VAGRANT NETWORKS

- Port forward
- Private network
- Public network

VAGRANT SCALING

```
Vagrant.configure("2") do |config|

  (1..2).each do |i|
    config.ssh.insert_key = false

    config.vm.define "vm#{i}" do |node|
      node.vm.box = "ubuntu/bionic64"
      node.vm.network "private_network", ip: "192.168.25.10#{i}"
      node.vm.provision "shell", inline: "echo hello from node #{i}"
    end
  end

end
```

DEMO

```
Vagrant.configure("2") do |config|

  config.vm.define "machine-1" do |node|
    node.vm.box = "kalilinux/rolling"
    node.vm.network "private_network", ip: "192.168.25.101"
    node.vm.provision "shell", inline: "echo hello from at

    config.vm.provider "virtualbox" do |vb|

      vb.memory = "4022" # increasing the ram to 4 gb
    end
  end

  config.vm.define "machine-2" do |node|
```


QUESTIONS AND FEEDBACK

REFERENCES

1. <http://minimum-viable-automation.com/vagrant/setup-simple-vagrant-box-ansible-examples/>
2. <https://www.youtube.com/watch?v=vBreXjkizgo>
3. <https://www.vagrantup.com/intro/getting-started/>