

Vagrant & Load Balancing

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Vagrant status

```
File Edit View Search Terminal Help
johny@johny-ubuntu: ~/vagrant_ansible_multi_server

Bringing machine 'lb' up with 'virtualbox' provider...
Bringing machine 'web1' up with 'virtualbox' provider...
Bringing machine 'web2' up with 'virtualbox' provider...
==> mgmt: checking if box 'ubuntu/trusty64' is up to date...
==> mgmt: Resuming suspended VM...
==> mgmt: Booting VM...
==> mgmt: Waiting for machine to boot. This may take a few minutes...
mgmt: SSH address: 127.0.0.1:2222
mgmt: SSH username: vagrant
mgmt: SSH auth method: private key
==> mgmt: Machine booted and ready!
==> mgmt: Machine already provisioned. Run 'vagrant provision' or use the '--provision'
==> mgmt: flag to force provisioning. Provisioners marked to run always will still run.
==> lb: checking if box 'ubuntu/trusty64' is up to date...
==> lb: Resuming suspended VM...
==> lb: Booting VM...
==> lb: Waiting for machine to boot. This may take a few minutes...
lb: SSH address: 127.0.0.1:2200
lb: SSH username: vagrant
lb: SSH auth method: private key
==> lb: Machine booted and ready!
==> lb: Machine already provisioned. Run 'vagrant provision' or use the '--provision'
==> lb: flag to force provisioning. Provisioners marked to run always will still run.
==> web1: checking if box 'ubuntu/trusty64' is up to date...
==> web1: Resuming suspended VM...
==> web1: Booting VM...
==> web1: Waiting for machine to boot. This may take a few minutes...
web1: SSH address: 127.0.0.1:2201
web1: SSH username: vagrant
web1: SSH auth method: private key
==> web1: Machine booted and ready!
==> web1: Machine already provisioned. Run 'vagrant provision' or use the '--provision'
==> web1: flag to force provisioning. Provisioners marked to run always will still run.
==> web2: checking if box 'ubuntu/trusty64' is up to date...
==> web2: Resuming suspended VM...
==> web2: Booting VM...
==> web2: Waiting for machine to boot. This may take a few minutes...
web2: SSH address: 127.0.0.1:2202
web2: SSH username: vagrant
web2: SSH auth method: private key
==> web2: Machine booted and ready!
==> web2: Machine already provisioned. Run 'vagrant provision' or use the '--provision'
==> web2: flag to force provisioning. Provisioners marked to run always will still run.
johny@johny-ubuntu:~/vagrant_ansible_multi_server$ vagrant status
Current machine states:
mgmt                running (virtualbox)
lb                  running (virtualbox)
web1                running (virtualbox)
web2                running (virtualbox)

This environment represents multiple VMs. The VMs are all listed
above with their current state. For more information about a specific
VM, run 'vagrant status NAME'.
johny@johny-ubuntu:~/vagrant_ansible_multi_server$
```

Testing connection to all machines in ansible environment

```
File Edit View Search Terminal Help
vagrant@mgmt: ~

johny@johny-ubuntu:~/vagrant_ansible_multi_server$ vagrant status
Current machine states:
mgmt                running (virtualbox)
lb                  running (virtualbox)
web1                running (virtualbox)
web2                running (virtualbox)

This environment represents multiple VMs. The VMs are all listed
above with their current state. For more information about a specific
VM, run 'vagrant status NAME'.
johny@johny-ubuntu:~/vagrant_ansible_multi_server$ vagrant ssh mgmt
Welcome to Ubuntu 14.04.6 LTS (GNU/Linux 3.13.0-170-generic x86_64)

 * Documentation:  https://help.ubuntu.com/

System information as of Tue Sep 17 14:37:15 UTC 2019

System load:  0.07               Processes:    76
Usage of /:   4.2% of 39.34GB     Users logged in:  0
Memory usage: 28%                IP address for eth0: 10.0.2.15
Swap usage:   0%                 IP address for eth1: 10.0.15.15

Graph this data and manage this system at:
https://landscape.canonical.com/

4 updates can be installed immediately.
0 of these updates are security updates.

Last login: Mon Sep 16 06:31:36 2019 from 10.0.2.2
vagrant@mgmt:~$ ansible all -m ping --ask-pass
SSH password:
loadbalancer | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "ping": "pong"
}
web1 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "ping": "pong"
}
web2 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "ping": "pong"
}
vagrant@mgmt:~$
```

Installing Apache & HAProxy

```
vagrant@mgmt: /vagrant
File Edit View Search Terminal Help
}
web1 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "ping": "pong"
}
web2 | SUCCESS => {
  "ansible_facts": {
    "discovered_interpreter_python": "/usr/bin/python"
  },
  "changed": false,
  "ping": "pong"
}
vagrant@mgmt:~$ cd /vagrant
vagrant@mgmt:/vagrant$ ansible-playbook apache.yml --ask-pass
SSH password:
[DEPRECATION WARNING]: Instead of sudo/sudo_user, use become/become_user and make sure become_method is 'sudo' (default). This feature will be removed in version 2.9. Deprecation warnings can be disabled by setting deprecation_warnings=False in ansible.cfg.

PLAY [web] *****

TASK [Gathering Facts] *****
ok: [web2]
ok: [web1]

TASK [Install apache2] *****
ok: [web1]
ok: [web2]

PLAY RECAP *****
web1                : ok=2  changed=0  unreachable=0  failed=0  skipped=0  rescued=0  ignored=0
web2                : ok=2  changed=0  unreachable=0  failed=0  skipped=0  rescued=0  ignored=0

vagrant@mgmt:/vagrant$ ansible-playbook haproxy.yml --ask-pass
SSH password:
[DEPRECATION WARNING]: Instead of sudo/sudo_user, use become/become_user and make sure become_method is 'sudo' (default). This feature will be removed in version 2.9. Deprecation warnings can be disabled by setting deprecation_warnings=False in ansible.cfg.

PLAY [loadbalancer] *****

TASK [Gathering Facts] *****
ok: [loadbalancer]

TASK [Install haproxy] *****
ok: [loadbalancer]

TASK [Enable init script] *****
ok: [loadbalancer]

PLAY RECAP *****
loadbalancer        : ok=3  changed=0  unreachable=0  failed=0  skipped=0  rescued=0  ignored=0

vagrant@mgmt:/vagrant$
```

Setting mgmt server

```
johny@johny-ubuntu: ~
File Edit View Search Terminal Help
GNU nano 2.9.3 /etc/hosts
172.0.0.1 localhost
172.0.0.1 johny-ubuntu
10.0.15.16 example.com

# The following lines are desirable for IPv6 capable hosts
::1 ip6-localhost ip6-loopback
fe80:: ip6-localnet
ff00:: ip6-mcastprefix
ff02:: ip6-allnodes
ff02:: ip6-allrouters

Read 10 lines
Get Help  Write Out  Where Is  Cut Text  Justify  Cur Pos  Mark Text  To Bracket  Previous  Back  Prev Word
Exit      Read File  Replace  Uncut Text  To Spell  Go To Line  Copy Text  WhereIs Next  Next     Forward  Next Word
```

Starting HAProxy Load Balancer

