

# glusterfs

## vagrant

- require: vagrant plugin install vagrant-hosts

### Vagrantfile

```
VAGRANTFILE_API_VERSION = "2"

cluster = {
  "node1" => { :ip => "10.0.0.10", :cpus => 1, :mem => 1024 },
  "node2" => { :ip => "10.0.0.20", :cpus => 1, :mem => 1024 },
  "node3" => { :ip => "10.0.0.30", :cpus => 1, :mem => 1024 }
}

Vagrant.configure(VAGRANTFILE_API_VERSION) do |config|

  cluster.each_with_index do |(hostname, info), index|

    config.vm.define hostname do |cfg|

      cfg.vm.provider :virtualbox do |vb, override|
        config.vm.box = "debian/buster64"
        override.vm.network :private_network, ip: "#{info[:ip]}"
        override.vm.hostname = hostname
        vb.name = hostname
        vb.customize ["modifyvm", :id, "--memory", info[:mem], "--cpus",
info[:cpus], "--hvirtex", "on"]

        file_to_disk = 'data/' + hostname + '-disk.vdi'
        unless File.exist?(file_to_disk)
          vb.customize ['createhd',
            '--filename', file_to_disk,
            '--size', 5 * 1024]
        end
        vb.customize ['storageattach', :id,
          '--storagectl', 'SATA Controller',
          '--port', 1,
          '--device', 0,
          '--type', 'hdd',
          '--medium', file_to_disk]

      end # end provider

      config.vm.provision 'shell', path: './data/allnodes.sh'
      config.vm.provision :hosts, :sync_hosts => true

      node_script = './data/' + hostname + '.sh'
      if File.exists?(node_script) then
        config.vm.provision "file", source: node_script, destination: "$HOME/"
      else
        config.vm.provision "shell", inline: "echo SCRIPT not found!"
      end
    end
  end
end
```

```

end

end # end config

end # end cluster
end

```

## allnodes.sh

```

[[ ! -f /etc/provision_env_disk_added_date ]] && {

echo 'type=83' | sudo sfdisk /dev/sdb
sudo mkfs.ext4 /dev/sdb1
sudo mkdir -p /exports/sdb1
echo "/dev/sdb1      /exports/sdb1    ext4 user,auto,defaults      0      0"
| sudo tee --append /etc/fstab
sudo date > /etc/provision_env_disk_added_date

}

mount /exports/sdb1
sudo mkdir /exports/sdb1/brick1

sudo apt-get -y install gnupg
wget -O - https://download.gluster.org/pub/gluster/glusterfs/7/rsa.pub | sudo
apt-key add -
# DEBID=$(grep 'VERSION_ID=' /etc/os-release | cut -d '=' -f 2 | tr -d '"')
# DEBVER=$(grep 'VERSION=' /etc/os-release | grep -Eo '[a-z]+')
# DEBARCH=$(dpkg --print-architecture)
# echo "deb
https://download.gluster.org/pub/gluster/glusterfs/LATEST/Debian/${DEBID}/${DE
BARCH}/apt ${DEBVER} main" | sudo tee /etc/apt/sources.list.d/gluster.list
echo "deb
https://download.gluster.org/pub/gluster/glusterfs/LATEST/Debian/10/amd64/apt
buster main" | sudo tee /etc/apt/sources.list.d/gluster.list

sudo apt-get -y update

sudo apt-get -y install glusterfs-server
sudo systemctl start glusterd

```

## node1.sh

```

#!/bin/bash

sudo gluster peer probe node2
sudo gluster peer probe node3

sudo gluster volume create gv0 replica 3 \
  node1:/exports/sdb1/brick1 \
  node2:/exports/sdb1/brick1 \
  node3:/exports/sdb1/brick1

sudo gluster volume start gv0

```

```
sudo mount -t glusterfs node1:/gv0 /mnt
```

node{2,3}.sh

```
#!/bin/bash
```

```
sudo mount -t glusterfs node1:/gv0 /mnt
```

## links

- <https://docs.gluster.org/en/latest/Quick-Start-Guide/Quickstart/>
- <https://kifarunix.com/install-and-setup-glusterfs-on-ubuntu-18-04/>
- <https://www.cyberciti.biz/faq/howto-add-new-brick-to-existing-glusterfs-replicated-volume/>

## logs

- <https://docs.gluster.org/en/latest/Administrator%20Guide/Logging/>
- [https://rajeshjoseph.gitbooks.io/test-guide/content/cluster/chap-Managing\\_Gluster\\_Logs.html](https://rajeshjoseph.gitbooks.io/test-guide/content/cluster/chap-Managing_Gluster_Logs.html)
- logrotation config: <https://www.jamescoyle.net/how-to/807-advanced-glusterfs-log-rotation>
  - /etc/logrotate.d/glusterfs-common
- force logrotation: <https://www.jamescoyle.net/how-to/679-simple-glusterfs-log-rotation>

- ```
gluster volume info all | grep "Volume Name"
```

- ```
gluster volume log rotate VOL_NAME [BRICK]:
```

```
sudo gluster volume log rotate gv0 processing1:/exports/sdb1/brick1
```

- /var/log/glusterfs/bricks/exports-sdb1-brick1.log

## commands

- ```
/etc/init.d/glusterfs-server status
```

- config files: **/var/lib/glusterd**

## generals

```
sudo gluster help
```

```
glusterfs --version
```

```
glusterfs 3.4.2 built on Jan 14 2014 18:05:35
```

```
Repository revision: git://git.gluster.com/glusterfs.git
```

```
Copyright (c) 2006-2013 Red Hat, Inc. <http://www.redhat.com/>
```

```
GlusterFS comes with ABSOLUTELY NO WARRANTY.
```

```
It is licensed to you under your choice of the GNU Lesser
```

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## volumes

```
sudo gluster volume info

Volume Name: gv0
Type: Replicate
Volume ID: 39159af2-8a53-44f0-9379-43b86370302a
Status: Started
Number of Bricks: 1 x 2 = 2
Transport-type: tcp
Bricks:
Brick1: processing1:/exports/sdb1/brick1
Brick2: processing2:/exports/sda1/brick1
```

```
sudo gluster vol status

Status of volume: gv0
Gluster process          Port      Online   Pid
-----
Brick processing1:/exports/sdb1/brick1      49152    Y      2130
Brick processing2:/exports/sda1/brick1      49152    Y      1822
NFS Server on localhost      2049    Y      2119
Self-heal Daemon on localhost      N/A     Y      2125
NFS Server on processing2      2049    Y      1829
Self-heal Daemon on processing2      N/A     Y      1821

There are no active volume tasks
```

```
gluster volume start gv0
```

```
gluster volume list
```

## logs

- gluster volume log locate <VOLNAME>

← no funciona encara que apareix a la documentació

- gluster volume log rotate <VOLNAME> <BRICK>

## peers

- afegir un nou node (ja configurat):

```
gluster peer probe <HOSTNAME>
```

- status dels nodes:

```
gluster peer status
```

From:

<https://miguelangel.torresegea.es/wiki/> - **miguel angel torres egea**

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Last update: **05/12/2020 07:07**

