

glusterfs

vagrant POC

- 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
sudo systemctl enable 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
```

- enb lugar de **node1**, podría ser cualquier otro de los dos nodos

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/>
- <https://www.osradar.com/install-and-configure-glusterfs-debian-10/>
- https://www.server-world.info/en/note?os=Debian_10&p=glusterfs&f=1
- https://www.server-world.info/en/note?os=Debian_10&p=glusterfs&f=4
- <https://docs.gluster.org/en/latest/CLI-Reference/cli-main/>
- <https://docs.gluster.org/en/latest/Install-Guide/Install/>

logs

- <https://docs.gluster.org/en/latest/Administrator%20Guide/Logging/>
- 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/>
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It is licensed to you under your choice of the GNU Lesser
General Public License, version 3 or any later version (LGPLv3
or later), or the GNU General Public License, version 2 (GPLv2),
in all cases as published by the Free Software Foundation.
```

## 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
```

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