**Yêu cầu 2: 2 node replicate Master-Master + 2 keepalived. Ứng dụng kết nối qua VIP. Keepalived check trạng thái Database.**

**Cài đặt mariadb + keepalived:**

Ip node 1: 192.168.10.217

Ip node 2: 192.168.10.214

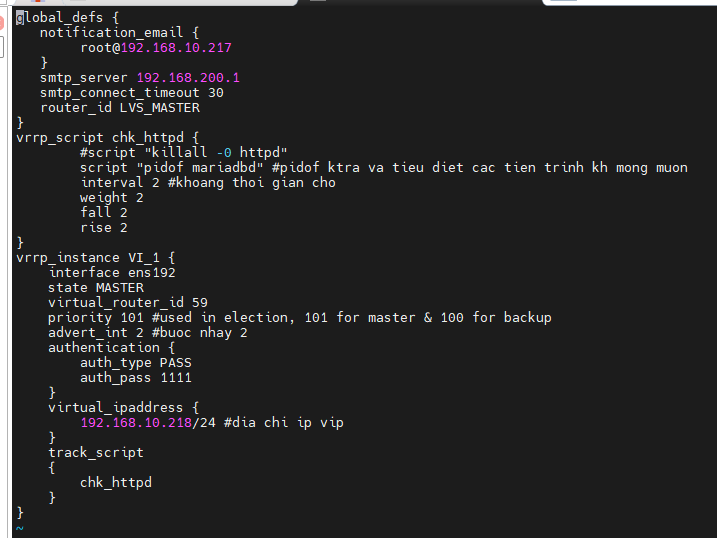
Ip vip: 192.168.10.218

**Cài đặt, cấu hình keepalived:**

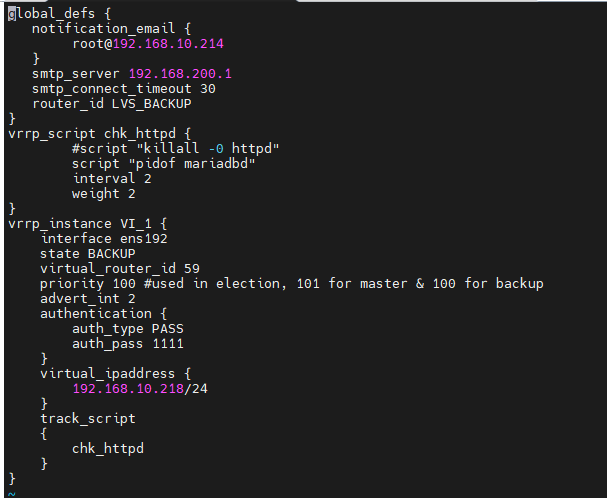
Cài đặt gói Keepalive trên 2 node: 192.168.10.217 và 192.168.10.214

# yum install keepalived -y

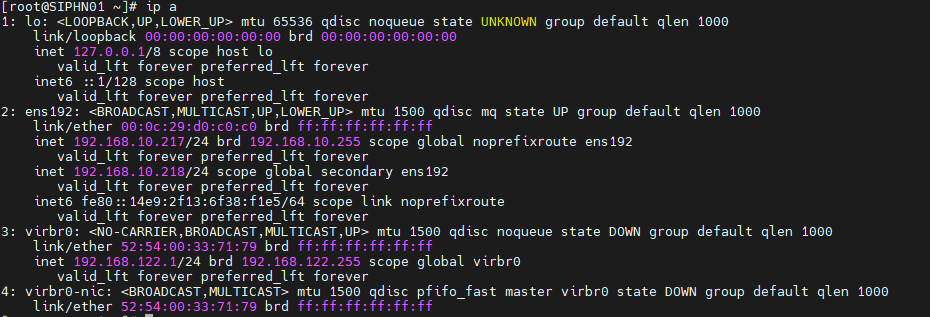
Trên node master 192.168.10.217:



Trên node master 192.168.10.214:



Kiểm tra địa chỉ ip:



Cài đặt mariadb version 10.11.2

$ sudo yum install wget

$ wget https://downloads.mariadb.com/MariaDB/mariadb\_repo\_setup

$ chmod +x mariadb\_repo\_setup

$ sudo ./mariadb\_repo\_setup

$ yum install epel-release -y

$ sudo yum install MariaDB-server

$ sudo systemctl start mariadb.service

**Cài đặt cluster mariadb:**

#Set hostname tương ứng trên 2 node

hostnamectl set-hostname galera01

hostnamectl set-hostname galera02

Cài đặt repo:

vim /etc/yum.repos.d/MariaDB.repo

[mariadb]

name = MariaDB

baseurl = https://mirrors.bkns.vn/mariadb/yum/10.10/centos7-amd64

gpgkey=https://mirrors.bkns.vn/mariadb/yum/RPM-GPG-KEY-MariaDB

gpgcheck=1

Package:

curl -LsS https://r.mariadb.com/downloads/mariadb\_repo\_setup | sudo bash -s -- --mariadb-maxscale-version="6.1"

yum install -y galera rsync

Config:

cp /etc/my.cnf.d/server.cnf /etc/my.cnf.d/server.cnf.bak

# vim /etc/my.cnf.d/server.cnf

[server]

[mysqld]

bind-address=0.0.0.0

[galera]

wsrep\_on=ON

wsrep\_provider=/usr/lib64/galera-4/libgalera\_smm.so

#add your node ips here

wsrep\_cluster\_address="gcomm://192.168.10.217,192.168.10.214"

binlog\_format=row

default\_storage\_engine=InnoDB

innodb\_autoinc\_lock\_mode=2

#Cluster name

wsrep\_cluster\_name="portal\_cluster"

# Allow server to accept connections on all interfaces.

#bind-address=0.0.0.0

## this server ip, change for each server

wsrep\_node\_address="192.168.10.217"

## this server name, change for each server

wsrep\_node\_name="galera01"

wsrep\_sst\_method=rsync

[embedded]

[mariadb]

[mariadb-10.8]

Khởi động dịch vụ trên máy Master:

galera\_new\_cluster

systemctl start mariadb

systemctl enable mariadb

systemctl status mariadb

Khởi động dịch vụ trên máy còn lại:

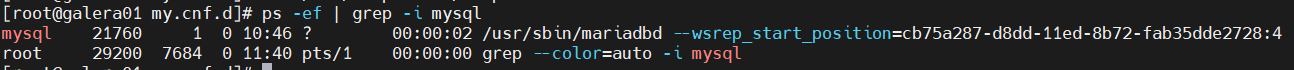
systemctl start mariadb

systemctl enable mariadb

systemctl status mariadb

**Kiểm tra mariadb Server:**

$ ps -ef | grep -I mariadbd



$ netstat -ant | grep 3306



**Cấp quyền cho các máy khác kết nối tới server:**

$ mysql -u root -p

Tạo database elcom, user elcom cho máy localhost:

MariaDB [(none)]> CREATE DATABASE elcom;

MariaDB [(none)]> CREATE USER 'elcom'@'localhost' IDENTIFIED BY '123';

**Tạo IP address 192.168.10.217 kết nối tới database elcom, user elcom:**

MariaDB [(none)]> GRANT ALL ON elcom.\* to 'elcom'@'192.168.10.217' IDENTIFIED BY '123' WITH GRANT OPTION;

**Cấp quyền:**

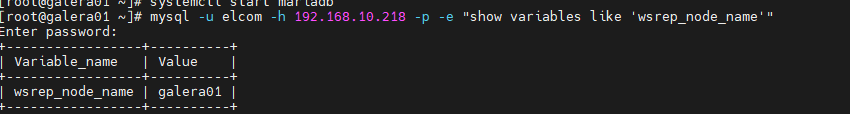
MariaDB [(none)]> FLUSH PRIVILEGES;

MariaDB [(none)]> EXIT;

MariaDB [(none)]> GRANT ALL ON \*.\* to ' elcom'@'192.168.10.217' IDENTIFIED BY 'password' WITH GRANT OPTION;

**Kiểm tra :**

mysql -u elcom -h 192.168.10.218 -p -e "show variables like 'wsrep\_node\_name'"



Tắt service mariadb ở node 1 đi, sang node 2 kiểm tra:

