**Install MySQL v8.0.21 & MySQL-Shell, MySQL Router trên Centos 8**

1. **Cài đặt MySQL (v8.0.21)**
2. **Disable SE Linux**

vi /etc/sysconfig/selinux

1. **Mount file iso**

mount /dev/cdrom /mnt/

1. **Tạo file repo local**

mv /etc/yum.repos.d/\*.repo /tmp/

vi /etc/yum.repos.d/local.repo

[LocalRepo\_BaseOS]

name=LocalRepository\_BaseOS

baseurl=file:///mnt/BaseOS

enabled=1

gpgcheck=1

gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-centosofficial

[LocalRepo\_AppStream]

name=LocalRepository\_AppStream

baseurl=file:///mnt/AppStream

enabled=1

gpgcheck=1

gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-centosofficial

1. **Download MySQL 8.0**

<https://dev.mysql.com/get/Downloads/MySQL-8.0/mysql-8.0.21-1.el8.x86_64.rpm-bundle.tar>

1. **Giải nén**

mkdir mysql8.0/

tar -xf mysql-8.0.21-1.el8.x86\_64.rpm-bundle.tar -C mysql8.0/

1. **Cài đặt các gói cần thiết**

dnf install -y openssl-devel

dnf install -y perl-JSON

dnf install -y perl-Getopt-Long

dnf install -y perl-Memoize

dnf install -y perl-Test-Simple

dnf install -y perl-Time-HiRes

1. **Cài đặt MySQL**

rpm -ivh mysql-community-common-8.0.21-1.el8.x86\_64.rpm

rpm -ivh mysql-community-libs-8.0.21-1.el8.x86\_64.rpm

rpm -ivh mysql-community-client-8.0.21-1.el8.x86\_64.rpm

rpm -ivh mysql-community-server-8.0.21-1.el8.x86\_64.rpm

rpm -ivh mysql-community-debuginfo-8.0.21-1.el8.x86\_64.rpm

rpm -ivh mysql-community-debugsource-8.0.21-1.el8.x86\_64.rpm

rpm -ivh mysql-community-client-debuginfo-8.0.21-1.el8.x86\_64.rpm

rpm -ivh mysql-community-devel-8.0.21-1.el8.x86\_64.rpm

rpm -ivh mysql-community-libs-debuginfo-8.0.21-1.el8.x86\_64.rpm

rpm -ivh mysql-community-server-debug-8.0.21-1.el8.x86\_64.rpm

rpm -ivh mysql-community-server-debug-debuginfo-8.0.21-1.el8.x86\_64.rpm

rpm -ivh mysql-community-server-debuginfo-8.0.21-1.el8.x86\_64.rpm

rpm -ivh mysql-community-test-8.0.21-1.el8.x86\_64.rpm

rpm -ivh mysql-community-test-debuginfo-8.0.21-1.el8.x86\_64.rpm

1. **Start MySQL & kiem tra version**

systemctl start mysqld­­

mysql --version

1. **Lấy Password root temp và đổi**

grep 'temporary password' /var/log/mysqld.log

mysql -u root -p

ALTER USER 'root'@'localhost' IDENTIFIED BY 'P@ssword123';

flush privileges;

exit;

1. **Cài đặt MySQL-Shell (v8.0.21)**
2. **Tải gói mysql-shell và cài đặt**

<https://dev.mysql.com/get/Downloads/MySQL-Shell/mysql-shell-8.0.21-1.el8.x86_64.rpm>

dnf install -y python36

rpm -ivh mysql-shell-8.0.21-1.el8.x86\_64.rpm

1. **Cài đặt MySQL-Router (v8.0.21)**
2. **Tải 2 gói mysql-router và cài đặt**

<https://dev.mysql.com/get/Downloads/MySQL-Router/mysql-router-community-8.0.21-1.el8.x86_64.rpm>

<https://dev.mysql.com/get/Downloads/MySQL-Router/mysql-router-community-debuginfo-8.0.21-1.el8.x86_64.rpm>

rpm -ivh mysql-router-community-8.0.21-1.el8.x86\_64.rpm

rpm -ivh mysql-router-community-debuginfo-8.0.21-1.el8.x86\_64.rpm

1. **Cấu hình Cluster (HA) InnoDB (v8.0.21)**

*192.168.254.146 noderoute*

*192.168.254.143 noderoute02*

*192.168.254.134 inodb01.localdomain*

*192.168.254.135 inodb02.localdomain*

*192.168.254.136 inodb03.localdomain*

1. **Đăng nhập vào MySQL Shell & Tạo tài khoản cho InnoDB Cluster**

mysqlsh

dba.configureLocalInstance("root@localhost:3306")

Account name: cluster@%

Password: P@ssword123

1. **Đăng nhập vào mysql và kiểm tra biến super\_read\_only nếu “ON” chuyển thành “OFF”**

#mysql -u cluster -p

SHOW VARIABLES;

SET GLOBAL super\_read\_only = 0;

UNLOCK TABLES;

exit;

1. **Thêm các dòng sau vào file /etc/hosts của 4 Node (Bao gồm cả routenode)**

192.168.254.146 routenode

192.168.254.134 inodb01.localdomain

192.168.254.135 inodb02.localdomain

192.168.254.136 inodb03.localdomain

1. **Tạo rule mở những port sau cần thiết cho việc cấu hình HA trên 3 node**

**Trên node** 192.168.254.124 routenode:

firewall-cmd --zone=public --permanent --add-port 3306/tcp

firewall-cmd --zone=public --permanent --add-port 33061/tcp

firewall-cmd --zone=public --permanent --add-port 6446/tcp

firewall-cmd --zone=public --permanent --add-port 6447/tcp

firewall-cmd --reload

**Trên node** 192.168.254.134 inodb01.localdomain, 192.168.254.135 inodb02.localdomain và 192.168.254.136 inodb03.localdomain

:

firewall-cmd --zone=public --permanent --add-port 3306/tcp

firewall-cmd --zone=public --permanent --add-port 33061/tcp

firewall-cmd –reload

1. **Cấu hình HA**

Trên node 01

mysqlsh

shell.connect('cluster@inodb01.localdomain:3306');

cluster = dba.getCluster('my\_innodb\_cluster')

cluster.status()

MySQL inodb01.localdomain:3306 ssl JS > \exit

Bye!

1. **Kiểm tra Status cluster sau khi tạo**

cluster.status()

1. **Thêm node 02 và node 03 vào cluster**

cluster.addInstance('cluster@inodb02.localdomain:3306');

cluster.addInstance('cluster@inodb03.localdomain:3306');

1. **Kiểm tra service mysql:**

[root@inodb01 ~]# systemctl status mysqld

● mysqld.service - MySQL Server

Loaded: loaded (/usr/lib/systemd/system/mysqld.service; enabled; vendor preset: disabled)

Active: active (running) since Mon 2020-10-19 02:42:34 EDT; 3h 41min ago

Docs: man:mysqld(8)

http://dev.mysql.com/doc/refman/en/using-systemd.html

Process: 1032 ExecStartPre=/usr/bin/mysqld\_pre\_systemd (code=exited, status=0/SUCCESS)

Main PID: 1713 (mysqld)

Status: "Server is operational"

Tasks: 52 (limit: 49751)

Memory: 872.8M

CGroup: /system.slice/mysqld.service

└─1713 /usr/sbin/mysqld

Oct 19 02:40:50 inodb01.localdomain systemd[1]: Starting MySQL Server...

Oct 19 02:42:34 inodb01.localdomain systemd[1]: Started MySQL Server.

1. **Cấu hình MySQL Router**

mysqlrouter --bootstrap cluster@inodb1.localdomain:3306 --directory myrouter --user=cluster

Start mysqlrouter: myrouter/start.sh

1. **Cấu hình keepalived và cấu hình HA cho 02 Node MySQL Router**

yum install -y keepalived

**Cấu hình keepalived**

**Tạo rule cho phép traffic của VRRP trên Firewalld:**

**firewall-cmd --add-rich-rule='rule protocol value="vrrp" accept' –permanent**

**firewall-cmd --reload**

**Trên Node MySQL Router master:**

[root@routenode ~]# vi /etc/keepalived/keepalived.conf

vrrp\_script chk\_mysqlrouter {

script "/usr/bin/pgrep mysqlrouter"

interval 5

}

vrrp\_instance VI\_1 {

state MASTER

interface ens32

virtual\_router\_id 51

priority 102

advert\_int 1

virtual\_ipaddress {

192.168.254.228/24

}

track\_script {

chk\_mysqlrouter

}

}

**Trên Node MySQL Router backup:**

[root@routenode02 ~]# vi /etc/keepalived/keepalived.conf

vrrp\_script chk\_mysqlrouter {

script "/usr/bin/pgrep mysqlrouter"

interval 5

}

vrrp\_instance VI\_1 {

state BACKUP

interface ens32

virtual\_router\_id 51

priority 101

advert\_int 1

virtual\_ipaddress {

192.168.254.228/24

}

track\_script {

chk\_mysqlrouter

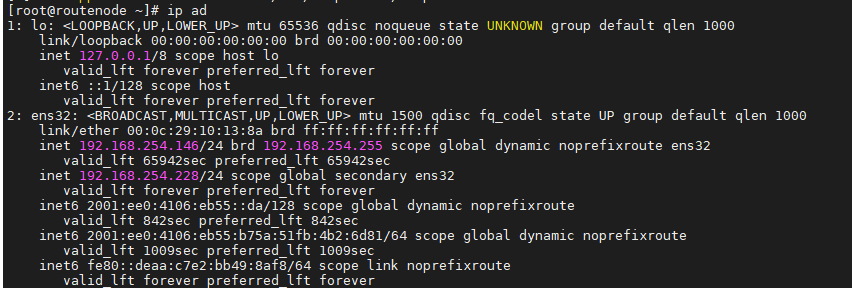
}

}

**Khởi động lại Keepalived**

systemctl restart keepalived

**Kiểm tra nhận VIP**



Shutdown mysqlrouter trên node master và kiểm tra lại VIP trên node backup