**Cài đặt và cấu hình Percona Xtra DB Cluster v8.0 trên Centos 8**

1. **Disable SELinux**

**vi /etc/sysconfig/selinux**

**reboot**

* 1. **Mount file ISO**

mount /dev/cdrom /mnt/

* 1. **Backup file repo mặc định của Centos 8**

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

* 1. **Tao responsitory local phục vụ quá trình cài các dependency**

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

##

yum clean all

* 1. **Download Percona XtraBackup + Percona XtraDB-Cluster, cai dat Percona release-noarch**

**XtraBackup:** <https://www.percona.com/downloads/Percona-XtraBackup-8.0/Percona-XtraBackup-8.0.14/binary/redhat/8/x86_64/Percona-XtraBackup-8.0.14-r113f3d7-el8-x86_64-bundle.tar>

**XtraCluster:** <https://www.percona.com/downloads/Percona-XtraDB-Cluster-LATEST/Percona-XtraDB-Cluster-8.0.20/binary/redhat/8/x86_64/Percona-XtraDB-Cluster-8.0.20-r234-el8-x86_64-bundle.tar>

**Percona release noarch:**

<https://www.percona.com/downloads/percona-release/redhat/>

* 1. **Cài đặt gói Percona - Release**

rpm -ivh percona-release-latest.noarch.rpm

* 1. **Disable module mysql**

dnf module disable mysql

* 1. **Cài đặt các gói denpendency cho XtraBackup**

dnf install libev

dnf install perl-DBD-MySQL

* 1. **Cài đặt module XtraBackup**

rpm -ivh percona-xtrabackup-24-debuginfo-2.4.20-1.el8.x86\_64.rpm

rpm -ivh percona-xtrabackup-24-2.4.20-1.el8.x86\_64.rpm

* 1. **Cài đặt các gói denpendency cho XtraCluster**

dnf install -y python2

dnf install -y socat

dnf install -y qpress

yum install compat-openssl10

* 1. **Cài đặt XtraDB Cluster**

rpm -ivh percona-xtradb-cluster-client-8.0.20-11.1.el8.x86\_64.rpm

rpm -ivh percona-xtradb-cluster-client-debuginfo-8.0.20-11.1.el8.x86\_64.rpm

rpm -ivh percona-xtradb-cluster-debuginfo-8.0.20-11.1.el8.x86\_64.rpm

rpm -ivh percona-xtradb-cluster-devel-8.0.20-11.1.el8.x86\_64.rpm

rpm -ivh percona-xtradb-cluster-garbd-8.0.20-11.1.el8.x86\_64.rpm

rpm -ivh percona-xtradb-cluster-garbd-debuginfo-8.0.20-11.1.el8.x86\_64.rpm

rpm -ivh percona-xtradb-cluster-full-8.0.20-11.1.el8.x86\_64.rpm

rpm -ivh percona-xtradb-cluster-test-8.0.20-11.1.el8.x86\_64.rpm

rpm -ivh percona-xtradb-cluster-full-8.0.20-11.1.el8.x86\_64.rpm

rpm -ivh percona-xtradb-cluster-server-8.0.20-11.1.el8.x86\_64.rpm

rpm -ivh percona-xtradb-cluster-shared-compat-8.0.20-11.1.el8.x86\_64.rpm

rpm -ivh percona-xtradb-cluster-server-8.0.20-11.1.el8.x86\_64.rpm

rpm -ivh percona-xtradb-cluster-shared-8.0.20-11.1.el8.x86\_64.rpm

rpm -ivh percona-xtradb-cluster-server-debuginfo-8.0.20-11.1.el8.x86\_64.rpm

rpm -ivh percona-xtradb-cluster-server-8.0.20-11.1.el8.x86\_64.rpm

rpm -ivh percona-xtradb-cluster-devel-8.0.20-11.1.el8.x86\_64.rpm

rpm -ivh percona-xtradb-cluster-debuginfo-8.0.20-11.1.el8.x86\_64.rpm

rpm -ivh percona-xtradb-cluster-8.0.20-11.1.el8.x86\_64.rpm

rpm -ivh percona-xtradb-cluster-full-8.0.20-11.1.el8.x86\_64.rpm

* 1. **Kiểm tra lại các gói sau khi cài**

rpm -qa | grep percona

* 1. **Khoi dong MySQL**

systemctl start mysql

* 1. **Xem passwd tmp**

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

mysql -u root -p

* 1. **Change password user root**

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

flush privileges;

exit

Note: Forget Password Root MySQL

mysqld\_safe --skip-grant-tables &

mysql>use mysql;

mysql>show tables;

update user set authentication\_string=password('123456') where user='root';

Flush privileges;

Exit;

mysqladmin -u root -p shutdown

* 1. **Tao rule mở port Firewall phục vụ cấu hình HA**

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

firewall-cmd --zone=public --permanent --add-port 4567/tcp

firewall-cmd --zone=public --permanent --add-port 4568/tcp

firewall-cmd --zone=public --permanent --add-port 4444/tcp

firewall-cmd --reload

**Cấu hình Cluster**

**Node 01: 192.168.254.134**

1. **Stop MySQL**

systemctl stop mysql

1. **Thêm các dòng sau vào file config:**

vi /etc/my.cnf

# Template my.cnf for PXC

# Edit to your requirements.

[client]

socket=/var/lib/mysql/mysql.sock

#ssl-ca=ca.pem

#ssl-cert=client-cert.pem

#ssl-key=client-key.pem

[mysqld]

server-id=1

datadir=/var/lib/mysql

socket=/var/lib/mysql/mysql.sock

log-error=/var/log/mysqld.log

pid-file=/var/run/mysqld/mysqld.pid

#wsrep\_provider\_options=”socket.ssl\_key=server-key.pem;socket.ssl\_cert=server-cert.pem;socket.ssl\_ca=ca.pem”

#[sst]

#encrypt=4

#ssl-key=server-key.pem

#ssl-ca=ca.pem

#ssl-cert=server-cert.pem

#nary log expiration period is 604800 seconds, which equals 7 days

binlog\_expire\_logs\_seconds=604800

######## wsrep ###############

# Path to Galera library

wsrep\_provider=/usr/lib64/galera4/libgalera\_smm.so

# Cluster connection URL contains IPs of nodes

#If no IP is found, this implies that a new cluster needs to be created,

#in order to do that you need to bootstrap this node

wsrep\_cluster\_address=gcomm://192.168.254.134,192.168.254.135,192.168.254.136

# In order for Galera to work correctly binlog format should be ROW

binlog\_format=ROW

# Slave thread to use

wsrep\_slave\_threads=8

wsrep\_log\_conflicts

# This changes how InnoDB autoincrement locks are managed and is a requirement for Galera

innodb\_autoinc\_lock\_mode=2

# Node IP address

wsrep\_node\_address=192.168.254.134

# Cluster name

wsrep\_cluster\_name=pxc-cluster

#If wsrep\_node\_name is not specified, then system hostname will be used

wsrep\_node\_name=percona01

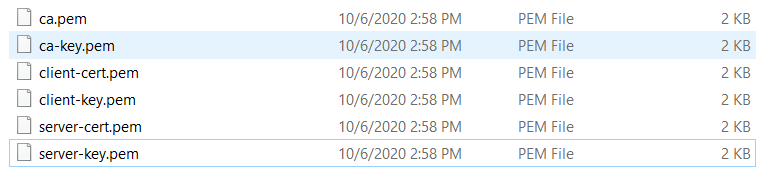
#pxc\_strict\_mode allowed values: DISABLED,PERMISSIVE,ENFORCING,MASTER

pxc\_strict\_mode=ENFORCING

# SST method

wsrep\_sst\_method=xtrabackup-v2

1. **Lưu cấu hình và khởi động bằng lệnh:** systemctl start [mysql@bootstrap.service](mailto:mysql@bootstrap.service)
2. **Kiểm tra cluster status bằng lệnh:** mysql> show status like 'wsrep%'
3. **Copy các file sau ở folder /**etc/lib/mysql **sang thư mục /**etc/lib/mysql **trên Node 02 và 03**

****

**Node 02: 192.168.254.135**

1. **Stop MySQL**
2. **Cấu hình tương tự sửa dòng** wsrep\_node\_address=192.168.254.135
3. **Lưu cấu hình và khởi động bằng lệnh:** systemctl start mysql

**Node 03: 192.168.254.136**

1. **Stop MySQL**
2. **Cấu hình tương tự sửa dòng** wsrep\_node\_address=192.168.254.136
3. **Lưu cấu hình và khởi động bằng lệnh:** systemctl start mysql