MYSQL

安装

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版本

Mysql

Percona-Server-5.7.29-32-Linux.x86_64.ssl101.tar.gz

Percona-Server-5.7.30-33-Linux.x86_64.ssl101.tar.gz

Percona-Server-8.0.19-10-Linux.x86_64.ssl101.tar.gz

Mysql安装

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1. 检查系统包

openssl

2. 检查系统中是否存在*mysql*用户及*mysql*组

```
# cat /etc/group | grep mysql
# cat /etc/passwd | grep mysql
```

3. 如果存在的话可删除用户和组，重新创建

```
# userdel mysql
# groupdel mysql
```

4. 检查系统中是否有*Mysql*服务

确定系统中的*Mysql*是否使用，确定不用后，停用。

```
# service mysqld status
# service mysqld stop
# chkconfig –list | grep mysql
# ps -ef | grep mysql
```

5. 创建*Mysql*组及用户

```
# groupadd -g 1001 mysql
# useradd -u 1101 -g 1001 -d /home/mysql mysql
```

6. 修改系统*limit.conf*参数

```
vim /etc/security/limits.conf
```

添加

```
mysql    hard   nofile      65535
```

重新登录用户，参数生效

注意：解决 [Warning] [MY-010139] [Server] Changed limits: max_open_files: 1024 (requested 9010) 警告

7. *copy mysql*文件

```
# ll /data/Percona-Server-5.7.29-32-Linux.x86_64.ssl101.tar.gz
```

8. 解压文件

```
# cd /data
# tar -zxvf Percona-Server-5.7.29-32-Linux.x86_64.ssl101.tar.gz
```

9. 文件夹名称重命名

```
# mv Percona-Server-5.7.29-32-Linux.x86_64.ssl101/data/mybase
```

10. 备份系统mysql配置文件

如果系统上有mysql，停用后备份my.cnf文件

```
# mv /etc/my.cnf /etc/my.cnf.bak
```

11. 在root用户下执行脚本f2_create_mysql_home.sh

```
#!/bin/sh

if [ ! "$1" ];then
   echo -e "\033[31m please input mysql home path!!! \033[0m"
   exit 1
fi

if [ -d "$1" ]; then
echo -e "\033[31m directory $1 exists \033[0m"
exit 1
fi

MYSQL_SOFTWARE='/data/mybase'
if [ -d "$MYSQL_SOFTWARE" ]; then
echo -e "\033[34m mysql software : $MYSQL_SOFTWARE \033[0m"
else
echo -e "\033[31m \$MYSQL_SOFTWARE:$MYSQL_SOFTWARE is not exists \033[0m"
exit 1
fi

mkdir -p $1
cd $1

mkdir -p log
mkdir -p data
mkdir -p run
mkdir -p tmp

ln -s $MYSQL_SOFTWARE/bin/ bin
ln -s $MYSQL_SOFTWARE/share/ share
ln -s $MYSQL_SOFTWARE/support-files/ support-files
ln -s $MYSQL_SOFTWARE/lib/ lib

echo -e "\033[34m MySQL Home " `pwd` " created \033[0m"
echo -e "\033[34m you can do these next : \033[0m"
echo -e "\033[34m 1. make sure /etc/my.cnf is not exists \033[0m"

if [ -f "/etc/my.cnf" ]; then
echo -e "\033[31m  /etc/my.cnf exists now !!!  \033[0m"
fi
echo -e "\033[34m 2. prepare my.cnf in NEW MySQL Home \033[0m"
echo -e "\033[34m 3. run bin/mysql_install_db manualy \033[0m"

cd - 2>&1 >> /dev/null
```

 # sh f2_create_mysql_home.sh /data/mysql/my3306
注意：参数是“/data/mysql/my3306“

 # chown -R mysql:mysql /data/mysql

12. 配置用户环境变量*(mysql*用户下*) .bash_profile*

.bash_profile

```
# .bash_profile

# Get the aliases and functions
if [ -f ~/.bashrc ]; then
        . ~/.bashrc
fi

# User specific environment and startup programs

PATH=$PATH:$HOME/.local/bin:$HOME/bin

export PATH

i=1
for port in `ls  /data/mysql/ |grep '^my33*'|awk -F'my' '{print $2}'`
do
  alias ${i}="MYSQL_PORT=${port};source ~/.bash_profile_mysql;cd /data/mysql/my${port}"
  # alive=`/data/mybase/bin/mysqladmin ping -s -S /data/mysql/my$port/run/mysql.$port.sock`
  alive=`/data/mybase/bin/mysqladmin ping -s -S /data/mysql/my$port/run/mysql.$port.sock -uroot -proot 2>/dev/
null`
  if [ $? = 0 ];then
    alive='is alive'
    # dblist=`/data/mybase/bin/mysql -N -S /data/mysql/my$port/run/mysql.$port.sock -e"show databases;"|egrep -v
'information_schema|mysql|performance_schema|test'| awk '{printf "%s ",$0}'`
    dblist=`/data/mybase/bin/mysql -N -S /data/mysql/my$port/run/mysql.$port.sock -uroot -proot -e"show
databases;" 2>/dev/null | egrep -v 'information_schema|mysql|performance_schema|test'| awk '{printf "%s ",$0}'`
  else
    alive='is not alive'
    dblist=""
  fi
  echo "${i} - Instance $port $alive - Instance DB : $dblist"
  let i=i+1

done

echo "Pleas type the number go to target instance"
```

添加***.bash_profile_mysql***

```
#!/bin/sh

echo "change to mysql $MYSQL_PORT"
export MYSQL_HOME="/data/mysql/my$MYSQL_PORT"
export MY_BASEDIR_VERSION="/data/mysql/my$MYSQL_PORT"
export PATH=$MYSQL_HOME/bin:$PATH

MYSQL_THDS="my$MYSQL_PORT"
MYSQL_STATUS='MASTER'
export PS1="[\e[1;34m"'$MYSQL_THDS':'$MYSQL_STATUS'"\e[0m "`hostname`":\e[1;32m mysql\e[m \w\e[0m ]\n\$ "

alias MYSQL.START='nohup mysqld_safe > /dev/null 2>&1 & '
alias MYSQL.STOP='mysqladmin -uroot -proot shutdown'
```

13. 创建*my.cnf*配置文件*(mysql*用户下*)* —— *mysql5.7*

文件路径：*/data/mysql/my3306/my.cnf*

```
[client]
port            = 3306
socket          = /data/mysql/my3306/run/mysql.3306.sock
loose-default-character-set = utf8mb4

[mysqld]
sha256_password_private_key_path=/data/mysql/my3306/mykey.pem
sha256_password_public_key_path=/data/mysql/my3306/mykey.pub

##large_pages
port            = 3306
socket          = /data/mysql/my3306/run/mysql.3306.sock
server-id       = 20200428
gtid-mode = on
enforce-gtid-consistency = on
log-slave-updates = on
character-set-server  = utf8mb4
default-storage-engine = InnoDB
lower_case_table_names = 1

userstat = 1

innodb_old_blocks_time = 1000
innodb_stats_on_metadata = off
log_slow_verbosity    = microtime,innodb

#replicate-do-db        = zabbix
federated
skip-slave-start
skip-name-resolve
skip-external-locking
log-slave-updates
```

```
slave-skip-errors       = 1062,1146
slave_net_timeout       = 60

back_log                = 500
max_allowed_packet      = 1073741824
#table_cache            = 8192
max_connections         = 1000
max_connect_errors      = 500

key_buffer_size         = 32M
sort_buffer_size        = 4M
read_buffer_size        = 2M
read_rnd_buffer_size    = 8M
join_buffer_size        = 2M
tmp_table_size          = 256M
max_heap_table_size     = 256M
binlog_cache_size       = 8M
myisam_sort_buffer_size = 64M
thread_cache_size       = 64
query_cache_type        = 0

slow_query_log          = 1
slow_query_log_file     = /data/mysql/my3306/log/mysql-slow.log
long_query_time         = 1
log-error               = /data/mysql/my3306/log/mysql-error.log
log-bin                 = /data/mysql/my3306/log/mysql-bin
relay_log               = mysql-relay-bin
binlog_format           = ROW
tmpdir                  = /data/mysql/my3306/tmp
secure_auth             = 1
local-infile            = 0
event_scheduler         = OFF

innodb_file_per_table   = 1
innodb_file_format      = barracuda
innodb_file_format_check = barracuda
innodb_open_files       = 4096

datadir                 = /data/mysql/my3306/data/
innodb_data_home_dir            = /data/mysql/my3306/data/
innodb_data_file_path           = ibdata1:1000M;ibdata2:1000M;ibdata3:1000M;ibdata4:100M:autoextend
innodb_log_group_home_dir       = /data/mysql/my3306/data/
innodb_table_locks              = 0
innodb_buffer_pool_size         = 1G
innodb_log_file_size            = 256M
innodb_log_files_in_group       = 2
innodb_log_buffer_size          = 32M
innodb_flush_method             = O_DIRECT
innodb_flush_log_at_trx_commit  = 0
innodb_max_dirty_pages_pct      = 60
innodb_write_io_threads         = 16
```

```
innodb_read_io_threads         = 8
innodb_adaptive_flushing       = 0
innodb_io_capacity             = 200
innodb_flush_neighbors         = 0
innodb_thread_concurrency      = 0

[mysqldump]
quick
max_allowed_packet = 16M

[mysql]
no-auto-rehash

[isamchk]
key_buffer      = 256M
sort_buffer_size = 256M
read_buffer     = 2M
write_buffer    = 2M

[myisamchk]
key_buffer      = 256M
sort_buffer_size = 256M
read_buffer     = 2M
write_buffer    = 2M

[mysqlhotcopy]
interactive-timeout

[mysqld_safe]
malloc-lib = /usr/lib64/libjemalloc.so
```

14. 创建*my.cnf*配置文件*(mysql*用户下*)* —— *mysql8*

文件路径：***/data/mysql/my3306/my.cnf***

```
[client]
port          = 3306
socket        = /data/mysql/my3306/run/mysql.3306.sock
loose-default-character-set = utf8mb4

[mysqld]
default-time-zone = '+08:00'

sha256_password_private_key_path=/data/mysql/my3306/mykey.pem
sha256_password_public_key_path=/data/mysql/my3306/mykey.pub

##large_pages
port          = 3306
socket        = /data/mysql/my3306/run/mysql.3306.sock
```

```
mysqlx_socket  = /data/mysql/my3306/run/mysqlx.3306.sock

server-id            = 20200428
gtid-mode = on
enforce-gtid-consistency = on
log-slave-updates = on
character-set-server  = utf8mb4
default-storage-engine = InnoDB
lower_case_table_names = 1

userstat = 1

innodb_old_blocks_time = 1000
innodb_stats_on_metadata = off
log_slow_verbosity    = microtime,innodb

#replicate-do-db        = zabbix
federated
skip-slave-start
skip-name-resolve
skip-external-locking
log-slave-updates
#slave-skip-error       = 1062,1146
slave_net_timeout      = 60

back_log              = 500
max_allowed_packet     = 1073741824
#table_cache           = 8192
max_connections        = 1000
max_connect_errors     = 500

#key_buffer            = 32M
sort_buffer_size       = 4M
read_buffer_size       = 2M
read_rnd_buffer_size   = 8M
join_buffer_size       = 2M
tmp_table_size         = 256M
max_heap_table_size    = 256M
binlog_cache_size      = 8M
myisam_sort_buffer_size = 64M
thread_cache_size      = 64

slow_query_log         = 1
slow_query_log_file    = /data/mysql/my3306/log/mysql-slow.log
long_query_time        = 1

log-error             = /data/mysql/my3306/log/mysql-error.log


log-bin               = /data/mysql/my3306/log/mysql-bin
relay_log              = mysql-relay-bin
```

```
binlog_format          = ROW

tmpdir                 = /data/mysql/my3306/tmp
#thread_concurrency     = 16


local-infile      = 0
event_scheduler    = OFF

#innodb_use_sys_malloc = 1
innodb_file_per_table    = 1
innodb_open_files        = 2048

datadir                        = /data/mysql/my3306/data/
innodb_data_home_dir           = /data/mysql/my3306/data/
innodb_data_file_path          = ibdata1:1000M;ibdata2:1000M;ibdata3:1000M;ibdata4:100M:autoextend
innodb_log_group_home_dir      = /data/mysql/my3306/data/
innodb_table_locks             = 0
innodb_buffer_pool_size        = 1G
#innodb_additional_mem_pool_size = 16M
innodb_log_file_size           = 256M
innodb_log_files_in_group      = 2
innodb_log_buffer_size         = 32M
innodb_flush_method            = O_DIRECT
innodb_flush_log_at_trx_commit  = 0


innodb_max_dirty_pages_pct     = 60
innodb_write_io_threads        = 16
innodb_read_io_threads         = 8
innodb_adaptive_flushing       = 0
innodb_io_capacity             = 200
innodb_flush_neighbors         = 0
innodb_thread_concurrency      = 0



[mysqldump]
quick
max_allowed_packet = 16M

[mysql]
no-auto-rehash

[isamchk]
key_buffer      = 256M
sort_buffer_size = 256M
read_buffer     = 2M
write_buffer    = 2M

[myisamchk]
```

```
key_buffer      = 256M
sort_buffer_size = 256M
read_buffer     = 2M
write_buffer    = 2M

[mysqlhotcopy]
interactive-timeout

[mysqld_safe]
malloc-lib = /usr/lib64/libjemalloc.so
```

15. 重新加载*mysql*用户环境

```
# su - mysql
```

16. 初始化数据库(*mysql*用户)

```
$ cd /data/mysql/my3306
$ bin/mysqld --initialize --datadir=/data/mysql/my3306/data --user=mysql --basedir=/data/mysql/my3306
```

记住密码（root密码临时分配）

```
2020-04-29T09:53:32.897909Z 0 [Warning] The syntax '--secure-auth' is deprecated and will be removed in a future release
2020-04-29T09:53:32.898143Z 0 [Warning] TIMESTAMP with implicit DEFAULT value is deprecated. Please use --explicit_defaults_for_timestamp server
2020-04-29T09:53:32.911033Z 0 [Warning] bin/mysqld: ignoring option '--innodb-file-format-check' due to invalid value 'barracuda'
2020-04-29T09:53:32.912109Z 0 [Warning] InnoDB: Using innodb_file_format is deprecated and the parameter may be removed in future releases. See h
 100 200 300 400 500 600 700 800 900 1000
 100 200 300 400 500 600 700 800 900 1000
 100 200 300 400 500 600 700 800 900 1000
 100
 100 200
 100 200
2020-04-29T09:53:37.975868Z 0 [Warning] InnoDB: New log files created, LSN=45791
2020-04-29T09:53:38.018432Z 0 [Warning] InnoDB: Creating foreign key constraint system tables.
2020-04-29T09:53:38.079908Z 0 [Warning] No existing UUID has been found, so we assume that this is the first time that this server has been start
2020-04-29T09:53:38.080818Z 0 [Warning] Gtid table is not ready to be used. Table 'mysql.gtid_executed' cannot be opened.
2020-04-29T09:53:38.915656Z 0 [Warning] CA certificate ca.pem is self signed.
2020-04-29T09:53:38.915741Z 0 [Warning] RSA private key file not found: /data/mysql/my3306/mykey.pem. Some authentication plugins will not work.
2020-04-29T09:53:38.915761Z 0 [Warning] RSA public key file not found: /data/mysql/my3306/mykey.pub. Some authentication plugins will not work.
2020-04-29T09:53:38.916199Z 1 [Note] A temporary password is generated for root@localhost: L!et3BE5IaqX
```

17. *COPY lib file* 解决*mysqld_safe ld_preload libraries*问题

在root用户下操作

```
$ cp /data/mybase/lib/mysql/libjemalloc.so.1 /usr/lib64
$ cd /usr/lib64
$ ln -s libjemalloc.so.1 libjemalloc.so
```

18. 生产验证文件，解决*RSA private key file not found*

```
# su - mysql
# cd /data/mysql/my3306
# rpm -qa openssl
# openssl genrsa -out mykey.pem 1024
# openssl rsa -in mykey.pem -pubout -out mykey.pub

# chmod 400 mykey.pem
# chmod 444 mykey.pub
```

19. 修改ROOT密码

```
mysqladmin -u用户名 -p旧密码 password 新密码
```

另一种方式：

① 跳过MySQL的密码认证过程
#vim my.cnf(注：windows下修改的是my.ini)
在文档内搜索mysqld定位到[mysqld]文本段：
在[mysqld]后面任意一行添加“skip-grant-tables”用来跳过密码验证的过程

② 重启mysql
③ 重启后输入mysql即可进入mysql
④ 用sql来修改root的密码

```
mysql> update user set password=password("new password") where user="root";
mysql> flush privileges;
```

⑤ 去除“skip-grant-tables”参数，重启mysql

mysql8 修改root密码

① 在[mysqld]后面任意一行添加“skip-grant-tables”用来跳过密码验证的过程
② 重启后输入mysql即可进入mysql
③ mysql> flush privileges 【遇到 ERROR 1290 (HY000): The MySQL server is running with the --skip-grant-tables option so it cannot execute this statement】
④ mysql> alter user 'root'@'localhost' identified by 'root';
或者 mysql> ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY 'root';

20.mysql实例进程操作

启动MYSQL

```
$ MYSQL.START
```

关闭MYSQL

```
$ MYSQL.STOP
```

Mysql –