# Percona Server 5.6 多实例搭建

# 多实例搭建

### Percona-Server版本

Percona-Server-server-56.x86\_64

### 安装方法

yum安装

rpm -ivh https://www.percona.com/redir/downloads/percona-release/redhat/latest/percona-release-0.1-4.noarch.rpm

yum install -y Percona-Server-server-56

rpm 安装

rpm -ivh http://www.percona.com/downloads/Percona-Server-5.6/Percona-Server-5.6.23-72.1/binary/redhat/6/x86\_64/Percona-Server-shared-56-5.6.23-rel72.1.el6.x86\_64.rpm

rpm -ivh http://www.percona.com/downloads/Percona-Server-5.6/Percona-Server-5.6.23-72.1/binary/redhat/6/x86\_64/Percona-Server-client-56-5.6.23-rel72.1.el6.x86\_64.rpm

rpm -ivh http://www.percona.com/downloads/Percona-Server-5.6/Percona-Server-5.6.23-72.1/binary/redhat/6/x86\_64/Percona-Server-server-56-5.6.23-rel72.1.el6.x86\_64.rpm

### my.cnf配置

请把如下my.txt文件的内容替换my.cnf的内容：

**my.cnf**  Expand source

[mysqld\_multi]

mysqld = /usr/bin/mysqld\_safe

mysqladmin = /usr/bin/mysqladmin

user = root

[mysqld1]

# GENERAL

#basedir = /usr/local/mysql

datadir =/data/mysql\_3306

tmpdir = /tmp

socket = /data/mysql\_3306/mysql\_3306.sock

pid\_file = /data/mysql\_3306/mysql\_3306.pid

binlog\_cache\_size = 16M

user = mysql

port = 3306

explicit\_defaults\_for\_timestamp = true

character-set-server = utf8

skip-name-resolve

#bind-address = 192.168.1.75

bind-address = 0.0.0.0

sql-mode = STRICT\_TRANS\_TABLES,NO\_ENGINE\_SUBSTITUTION

# INNODB

innodb\_buffer\_pool\_size = 4G

innodb\_buffer\_pool\_instances = 2

innodb\_thread\_concurrency = 4

innodb\_log\_buffer\_size = 32M

innodb\_log\_file\_size = 1024M

innodb\_online\_alter\_log\_max\_size = 512M

innodb\_open\_files = 1024

innodb\_purge\_threads = 2

innodb\_data\_home\_dir = /data/mysql\_3306

innodb\_data\_file\_path = ibdata1:128M:autoextend

innodb\_read\_io\_threads = 2

innodb\_write\_io\_threads = 2

innodb\_file\_per\_table = 1

innodb\_flush\_method = O\_DIRECT

innodb\_max\_dirty\_pages\_pct = 90

# MyISAM

key\_buffer\_size = 32M

# LOGS

#general\_log = 1

#general\_log\_file = /data/mysql\_3306/mysql\_general.log

log\_warnings = 2

log\_error = /data/mysql\_3306/mysql\_error.log

slow\_query\_log = ON

slow\_query\_log\_file = /data/mysql\_3306/mysql\_slow.log

log\_queries\_not\_using\_indexes = 1

long\_query\_time = 2

expire\_logs\_days = 1

log-bin = mysql-bin.log

max\_binlog\_size = 512M

innodb\_print\_all\_deadlocks = 1

relay-log = relay-log

relay-log-index = relay-log

#Replication

server-id = 3306 #inet\_aton('119.254.115.75')

binlog\_format = ROW

binlog\_rows\_query\_log\_events = 1

binlog\_ignore\_db = performance\_schema

binlog\_ignore\_db = admin\_yooli

replicate-ignore-db = admin\_yooli

#replicate-ignore-table = admin\_yooli.fg0dl\_session

log\_slave\_updates = 1

slave\_parallel\_worker = 4

gtid-mode = on

enforce\_gtid\_consistency = true

#Replication Semi Sync

#rpl\_semi\_sync\_master\_enabled = 1

#rpl\_semi\_sync\_master\_timeout = 1000

#rpl\_semi\_sync\_slave\_enabled = 1

#read\_only = 1

binlog\_checksum = CRC32

slave\_allow\_batching = 1

master\_verify\_checksum = 1

slave\_sql\_verify\_checksum = 1

master\_info\_repository = TABLE

relay\_log\_info\_repository = TABLE

# OTHER

tmp\_table\_size = 32M

max\_heap\_table\_size = 128M

query\_cache\_type = 0

query\_cache\_size = 128M

max\_connections = 1024

thread\_cache\_size = 200

open\_files\_limit = 65535

innodb\_buffer\_pool\_load\_at\_startup = ON

innodb\_buffer\_pool\_dump\_at\_shutdown = ON

# Monitoring

innodb\_monitor\_enable = '%'

performance\_schema = ON

performance\_schema\_instrument = '%=on'

[mysqld2]

# GENERAL

#basedir = /usr/local/mysql

datadir = /data/mysql\_3307

tmpdir = /tmp

socket = /data/mysql\_3307/mysql\_3307.sock

pid\_file = /data/mysql\_3307/mysql\_3307.pid

binlog\_cache\_size = 16M

user = mysql

port = 3307

explicit\_defaults\_for\_timestamp = true

character-set-server = utf8

skip-name-resolve

#bind-address = 192.168.1.75

bind-address = 0.0.0.0

sql-mode = STRICT\_TRANS\_TABLES,NO\_ENGINE\_SUBSTITUTION

# INNODB

innodb\_buffer\_pool\_size = 8G

innodb\_buffer\_pool\_instances = 2

innodb\_thread\_concurrency = 4

innodb\_log\_buffer\_size = 32M

innodb\_log\_file\_size = 1024M

innodb\_online\_alter\_log\_max\_size = 512M

innodb\_open\_files = 1024

innodb\_purge\_threads = 2

innodb\_data\_home\_dir = /data/mysql\_3307

innodb\_data\_file\_path = ibdata1:128M:autoextend

innodb\_read\_io\_threads = 2

innodb\_write\_io\_threads = 2

innodb\_file\_per\_table = 1

innodb\_flush\_method = O\_DIRECT

innodb\_max\_dirty\_pages\_pct = 90

# MyISAM

key\_buffer\_size = 32M

# LOGS

general\_log = 1

general\_log\_file = /data/mysql\_3307/mysql\_general.log

log\_warnings = 2

log\_error = /data/mysql\_3307/mysql\_error.log

slow\_query\_log = off

slow\_query\_log\_file = /data/mysql\_3307/mysql\_slow.log

#log\_queries\_not\_using\_indexes = 1

long\_query\_time = 2

expire\_logs\_days = 2

log-bin = mysql-bin.log

max\_binlog\_size = 512M

innodb\_print\_all\_deadlocks = 1

relay-log = relay-log

relay-log-index = relay-log

#Replication

server-id = 3307 #inet\_aton('119.254.115.75 3307')

binlog\_format = ROW

binlog\_rows\_query\_log\_events = 1

binlog\_ignore\_db = performance\_schema

log\_slave\_updates = 1

slave\_parallel\_worker = 4

gtid-mode = on

enforce\_gtid\_consistency = true

#Replication Semi Sync

#rpl\_semi\_sync\_master\_enabled = 1

#rpl\_semi\_sync\_master\_timeout = 1000

#rpl\_semi\_sync\_slave\_enabled = 1

#read\_only = 1

binlog\_checksum = CRC32

slave\_allow\_batching = 1

master\_verify\_checksum = 1

slave\_sql\_verify\_checksum = 1

master\_info\_repository = TABLE

relay\_log\_info\_repository = TABLE

# OTHER

tmp\_table\_size = 32M

max\_heap\_table\_size = 128M

query\_cache\_type = 0

query\_cache\_size = 128M

max\_connections = 256

thread\_cache\_size = 200

open\_files\_limit = 65535

innodb\_buffer\_pool\_load\_at\_startup = ON

innodb\_buffer\_pool\_dump\_at\_shutdown = ON

# Monitoring

innodb\_monitor\_enable = '%'

performance\_schema = ON

performance\_schema\_instrument = '%=on'

[mysql]

default-character-set = utf8

prompt ="\\u@\\h : \\d \\R:\\m:\\s>"

no-auto-rehash

操作方法：

* vi /etc/my.cnf
* 把my.txt的内容粘贴到my.cnf文件里。

【注意】  
打开my.txt，请使用Notepad++或者UE等软件，不然，字段不整齐。

### 创建各个单实例的my.cnf

特别说明，此多实例由两个实例组成，每个实例使用的端口分别为3306与3307端口，使用的数据目录分别为/data/mysql\_3306与/data/mysql\_3307.

* 创建使用3306端口的实例的my.cnf文件

把如下my\_3306.txt文件的内容写入/etc/my\_3306.cnf文件里：

**my\_3306.txt**  Expand source

[mysqld]

# GENERAL

#basedir = /usr/local/mysql

datadir =/data/mysql\_3306

tmpdir = /tmp

socket = /data/mysql\_3306/mysql\_3306.sock

pid\_file = /data/mysql\_3306/mysql\_3306.pid

binlog\_cache\_size = 16M

user = mysql

port = 3306

explicit\_defaults\_for\_timestamp = true

character-set-server = utf8

skip-name-resolve

#bind-address = 192.168.1.75

bind-address = 0.0.0.0

sql-mode = STRICT\_TRANS\_TABLES,NO\_ENGINE\_SUBSTITUTION

# INNODB

innodb\_buffer\_pool\_size = 4G

innodb\_buffer\_pool\_instances = 2

innodb\_thread\_concurrency = 4

innodb\_log\_buffer\_size = 32M

innodb\_log\_file\_size = 1024M

innodb\_online\_alter\_log\_max\_size = 512M

innodb\_open\_files = 1024

innodb\_purge\_threads = 2

innodb\_data\_home\_dir = /data/mysql\_3306

innodb\_data\_file\_path = ibdata1:128M:autoextend

innodb\_read\_io\_threads = 2

innodb\_write\_io\_threads = 2

innodb\_file\_per\_table = 1

innodb\_flush\_method = O\_DIRECT

innodb\_max\_dirty\_pages\_pct = 90

# MyISAM

key\_buffer\_size = 32M

# LOGS

#general\_log = 1

#general\_log\_file = /data/mysql\_3306/mysql\_general.log

log\_warnings = 2

log\_error = /data/mysql\_3306/mysql\_error.log

slow\_query\_log = ON

slow\_query\_log\_file = /data/mysql\_3306/mysql\_slow.log

log\_queries\_not\_using\_indexes = 1

long\_query\_time = 2

expire\_logs\_days = 1

log-bin = mysql-bin.log

max\_binlog\_size = 512M

innodb\_print\_all\_deadlocks = 1

relay-log = relay-log

relay-log-index = relay-log

#Replication

server-id = 3306 #inet\_aton('119.254.115.75')

binlog\_format = ROW

binlog\_rows\_query\_log\_events = 1

binlog\_ignore\_db = performance\_schema

binlog\_ignore\_db = admin\_yooli

replicate-ignore-db = admin\_yooli

#replicate-ignore-table = admin\_yooli.fg0dl\_session

log\_slave\_updates = 1

slave\_parallel\_worker = 4

gtid-mode = on

enforce\_gtid\_consistency = true

#Replication Semi Sync

#rpl\_semi\_sync\_master\_enabled = 1

#rpl\_semi\_sync\_master\_timeout = 1000

#rpl\_semi\_sync\_slave\_enabled = 1

#read\_only = 1

binlog\_checksum = CRC32

slave\_allow\_batching = 1

master\_verify\_checksum = 1

slave\_sql\_verify\_checksum = 1

master\_info\_repository = TABLE

relay\_log\_info\_repository = TABLE

# OTHER

tmp\_table\_size = 32M

max\_heap\_table\_size = 128M

query\_cache\_type = 0

query\_cache\_size = 128M

max\_connections = 1024

thread\_cache\_size = 200

open\_files\_limit = 65535

innodb\_buffer\_pool\_load\_at\_startup = ON

innodb\_buffer\_pool\_dump\_at\_shutdown = ON

# Monitoring

innodb\_monitor\_enable = '%'

performance\_schema = ON

performance\_schema\_instrument = '%=on'

* 创建使用3307端口的实例的my.cnf文件

把如下my\_3307.txt文件的内容写入/etc/my\_3307.cnf文件里：

**my\_3306.txt**  Expand source

 [mysqld]

# GENERAL

#basedir = /usr/local/mysql

datadir = /data/mysql\_3307

tmpdir = /tmp

socket = /data/mysql\_3307/mysql\_3307.sock

pid\_file = /data/mysql\_3307/mysql\_3307.pid

binlog\_cache\_size = 16M

user = mysql

port = 3307

explicit\_defaults\_for\_timestamp = true

character-set-server = utf8

skip-name-resolve

#bind-address = 192.168.1.75

bind-address = 0.0.0.0

sql-mode = STRICT\_TRANS\_TABLES,NO\_ENGINE\_SUBSTITUTION

# INNODB

innodb\_buffer\_pool\_size = 8G

innodb\_buffer\_pool\_instances = 2

innodb\_thread\_concurrency = 4

innodb\_log\_buffer\_size = 32M

innodb\_log\_file\_size = 1024M

innodb\_online\_alter\_log\_max\_size = 512M

innodb\_open\_files = 1024

innodb\_purge\_threads = 2

innodb\_data\_home\_dir = /data/mysql\_3307

innodb\_data\_file\_path = ibdata1:128M:autoextend

innodb\_read\_io\_threads = 2

innodb\_write\_io\_threads = 2

innodb\_file\_per\_table = 1

innodb\_flush\_method = O\_DIRECT

innodb\_max\_dirty\_pages\_pct = 90

# MyISAM

key\_buffer\_size = 32M

# LOGS

general\_log = 1

general\_log\_file = /data/mysql\_3307/mysql\_general.log

log\_warnings = 2

log\_error = /data/mysql\_3307/mysql\_error.log

slow\_query\_log = off

slow\_query\_log\_file = /data/mysql\_3307/mysql\_slow.log

#log\_queries\_not\_using\_indexes = 1

long\_query\_time = 2

expire\_logs\_days = 2

log-bin = mysql-bin.log

max\_binlog\_size = 512M

innodb\_print\_all\_deadlocks = 1

relay-log = relay-log

relay-log-index = relay-log

#Replication

server-id = 3307 #inet\_aton('119.254.115.75 3307')

binlog\_format = ROW

binlog\_rows\_query\_log\_events = 1

binlog\_ignore\_db = performance\_schema

log\_slave\_updates = 1

slave\_parallel\_worker = 4

gtid-mode = on

enforce\_gtid\_consistency = true

#Replication Semi Sync

#rpl\_semi\_sync\_master\_enabled = 1

#rpl\_semi\_sync\_master\_timeout = 1000

#rpl\_semi\_sync\_slave\_enabled = 1

#read\_only = 1

binlog\_checksum = CRC32

slave\_allow\_batching = 1

master\_verify\_checksum = 1

slave\_sql\_verify\_checksum = 1

master\_info\_repository = TABLE

relay\_log\_info\_repository = TABLE

# OTHER

tmp\_table\_size = 32M

max\_heap\_table\_size = 128M

query\_cache\_type = 0

query\_cache\_size = 128M

max\_connections = 256

thread\_cache\_size = 200

open\_files\_limit = 65535

innodb\_buffer\_pool\_load\_at\_startup = ON

innodb\_buffer\_pool\_dump\_at\_shutdown = ON

# Monitoring

innodb\_monitor\_enable = '%'

performance\_schema = ON

performance\_schema\_instrument = '%=on'

### 创建数据目录

* 创建3306的实例的数据目录

mkdir –p /data/mysql\_3306  
cd /data/mysql\_3306  
chown mysql:mysql mysql\_3306

* 创建3307的实例的数据目录

mkdir –p /data/mysql\_3307  
cd /data/mysql\_3307  
chown mysql:mysql mysql\_3307

### 初始化数据库

* 初始化3306端口的实例数据库

执行如下命令：  
mysql\_install\_db --user=mysql --datadir=/data/mysql\_3306 --defaults-file=/etc/my\_3306.cnf

* 初始化3307端口的实例数据库

执行如下命令：  
mysql\_install\_db --user=mysql --datadir=/data/mysql\_3307 --defaults-file=/etc/my\_3307.cnf

### 修改多实例启动脚本

操作步骤如下：  
cp /usr/share/percona-server/mysqld\_multi.server /etc/init.d/mysql  
vi /etc/init.d/mysql，修改如下两个参数：

|  |  |  |
| --- | --- | --- |
| 参数 | 原值 | 新值 |
| basedir | /usr/local/mysql | /usr |
| bindir | /usr/local/mysql/bin | /usr/bin |

保存退出。

### 启动多实例

执行如下命令：service mysql start

### 查看进程

ps –ef|grep mysqld  
如果有mysqld的进程，说明启动成功，否则，请查看日志

# 附加说明

启动多实例的方法：  
Service mysql start:是启动所有的实例  
Service mysql start 1：是只启动第一个实例  
Service mysql start 1-2：是启动1与2两个实例   
关闭多实例的方法：  
Service mysql stop:是停止所有的实例  
Service mysql stop 1：是只停止第一个实例  
Service mysql start 1-2：是停止1与2两个实例