MySQL主从同步

环境：rhel7.5系统虚拟机4台

关闭防火墙/selinux

由于实验机限制，改用mariadb，各位同学请采用mysql5.7软件

Ip地址：192.168.4.51/192.168.4.52/192.168.4.53/192.168.4.54

每台机器安装好mariadb和mariadb-server，root用户密码为123456

实验1：一主一从

主：192.168.4.51

从：192.168.4.52

Client：192.168.4.254

##配置主从同步初始化要求主从数据库一致

[root@server51 ~]# mysql -uroot -p123456

MariaDB [(none)]> show databases;

+--------------------+

| Database |

+--------------------+

| information\_schema |

| mysql |

| performance\_schema |

| test |

+--------------------+

4 rows in set (0.00 sec)

[root@server52 ~]# mysql -uroot -p123456

MariaDB [(none)]> show databases;

+--------------------+

| Database |

+--------------------+

| information\_schema |

| mysql |

| performance\_schema |

| test |

+--------------------+

4 rows in set (0.00 sec)

#配置主库

[root@server51 ~]# vim /etc/my.cnf

[root@server51 ~]# cat /etc/my.cnf | grep -v ^$ | grep -v ^#

[mysqld]

character\_set\_server='utf8'

server\_id=51

log\_bin=server51

binlog\_format='mixed'

datadir=/var/lib/mysql

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

symbolic-links=0

[mysqld\_safe]

log-error=/var/log/mariadb/mariadb.log

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

!includedir /etc/my.cnf.d

[root@server51 ~]# systemctl restart mariadb

[root@server51 ~]# ls /var/lib/mysql/server51.\*

/var/lib/mysql/server51.000001 /var/lib/mysql/server51.index

[root@server51 ~]# mysql -uroot -p123456

MariaDB [(none)]> show master status;

+-----------------+----------+--------------+------------------+

| File | Position | Binlog\_Do\_DB | Binlog\_Ignore\_DB |

+-----------------+----------+--------------+------------------+

| server51.000001 | 245 | | |

+-----------------+----------+--------------+------------------+

1 row in set (0.00 sec)

MariaDB [(none)]> grant replication slave on \*.\* to slaveuser@'192.168.4.52' identified by '123456';

Query OK, 0 rows affected (0.01 sec)

MariaDB [(none)]> select user,host from mysql.user;

+-----------+--------------+

| user | host |

+-----------+--------------+

| root | 127.0.0.1 |

| slaveuser | 192.168.4.52 |

| root | ::1 |

| | localhost |

| root | localhost |

| | server51 |

| root | server51 |

+-----------+--------------+

7 rows in set (0.00 sec)

MariaDB [(none)]> show master status;

+-----------------+----------+--------------+------------------+

| File | Position | Binlog\_Do\_DB | Binlog\_Ignore\_DB |

+-----------------+----------+--------------+------------------+

| server51.000001 | 401 | | |

+-----------------+----------+--------------+------------------+

1 row in set (0.00 sec)

#配置从库

[root@server52 ~]# mysql -h192.168.4.51 -uslaveuser -p123456

MariaDB [(none)]> show databases;

+--------------------+

| Database |

+--------------------+

| information\_schema |

| test |

+--------------------+

2 rows in set (0.01 sec)

[root@server52 ~]# vim /etc/my.cnf

[root@server52 ~]# cat /etc/my.cnf | grep -v ^$ | grep -v ^#

[mysqld]

server\_id=52

log\_bin=server52

binlog\_format="mixed"

character\_set\_server='utf8'

datadir=/var/lib/mysql

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

symbolic-links=0

[mysqld\_safe]

log-error=/var/log/mariadb/mariadb.log

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

!includedir /etc/my.cnf.d

[root@server52 ~]# systemctl restart mariadb

[root@server52 ~]# ls /var/lib/mysql/server52.\*

/var/lib/mysql/server52.000001 /var/lib/mysql/server52.index

[root@server52 ~]# mysql -uroot -p123456

MariaDB [(none)]> show slave status;

Empty set (0.00 sec)

MariaDB [(none)]> reset slave;

Query OK, 0 rows affected (0.00 sec)

MariaDB [(none)]> change master to

-> master\_host=192.168.4.51,

-> master\_port=3306\c

MariaDB [(none)]> change master to

-> master\_host="192.168.4.51",

-> master\_user="slaveuser",

-> master\_password='123456',

-> master\_log\_file="server51.000001",

-> master\_log\_pos=401;

Query OK, 0 rows affected (0.06 sec)

MariaDB [(none)]> start slave;

Query OK, 0 rows affected (0.00 sec)

MariaDB [(none)]> show slave status\G

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* 1. row \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Slave\_IO\_State: Waiting for master to send event

Master\_Host: 192.168.4.51

Master\_User: slaveuser

Master\_Port: 3306

Connect\_Retry: 60

Master\_Log\_File: server51.000001

Read\_Master\_Log\_Pos: 401

Relay\_Log\_File: mariadb-relay-bin.000002

Relay\_Log\_Pos: 528

Relay\_Master\_Log\_File: server51.000001

Slave\_IO\_Running: Yes

Slave\_SQL\_Running: Yes

#IO和SQL线程是yes则配置正确

[root@server52 ~]# ls /var/lib/mysql/

aria\_log.00000001 ib\_logfile0 mariadb-relay-bin.000002 mysql relay-log.info test

aria\_log\_control ib\_logfile1 mariadb-relay-bin.index mysql.sock server52.000001

ibdata1 mariadb-relay-bin.000001 master.info performance\_schema server52.index

#测试主从同步

MariaDB [(none)]> select @@hostname;

+------------+

| @@hostname |

+------------+

| server51 |

+------------+

1 row in set (0.00 sec)

MariaDB [(none)]> grant all on bbsdb.\* to admin@'192.168.4.254' identified by '123456';

Query OK, 0 rows affected (0.00 sec)

MariaDB [(none)]> flush privileges;

Query OK, 0 rows affected (0.00 sec)

MariaDB [(none)]> select user,host from mysql.user;

+-----------+---------------+

| user | host |

+-----------+---------------+

| root | 127.0.0.1 |

| admin | 192.168.4.254 |

| slaveuser | 192.168.4.52 |

| root | ::1 |

| | localhost |

| root | localhost |

| | server51 |

| root | server51 |

+-----------+---------------+

8 rows in set (0.00 sec)

MariaDB [(none)]> select @@hostname;

+------------+

| @@hostname |

+------------+

| server52 |

+------------+

1 row in set (0.00 sec)

MariaDB [(none)]> select user,host from mysql.user;

+-------+---------------+

| user | host |

+-------+---------------+

| root | 127.0.0.1 |

| admin | 192.168.4.254 |

| root | ::1 |

| | localhost |

| root | localhost |

| | server52 |

| root | server52 |

+-------+---------------+

7 rows in set (0.00 sec)

#client测试

[root@room8pc205 ~]# mysql -h192.168.4.51 -uadmin -p123456

MariaDB [(none)]> show databases;

+--------------------+

| Database |

+--------------------+

| information\_schema |

| test |

+--------------------+

2 rows in set (0.00 sec)

MariaDB [(none)]> create database bbsdb;

Query OK, 1 row affected (0.00 sec)

MariaDB [(none)]> create table bbsdb.t1 (id int);

Query OK, 0 rows affected (0.02 sec)

MariaDB [(none)]> insert into bbsdb.t1 values(100),(101),(102);

Query OK, 3 rows affected (0.01 sec)

Records: 3 Duplicates: 0 Warnings: 0

#从库验证

MariaDB [(none)]> select @@hostname;

+------------+

| @@hostname |

+------------+

| server52 |

+------------+

1 row in set (0.00 sec)

MariaDB [(none)]> show databases;

+--------------------+

| Database |

+--------------------+

| information\_schema |

| bbsdb |

| mysql |

| performance\_schema |

| test |

+--------------------+

5 rows in set (0.00 sec)

MariaDB [(none)]> select \* from bbsdb.t1;

+------+

| id |

+------+

| 100 |

| 101 |

| 102 |

+------+

3 rows in set (0.00 sec)

#测试，如果从库比主库数据多，一旦出现主库创建从库里边以存在的库表，SQL线程直接报错，主从同步无法继续执行，需要先处理冲突的sql命令

##主从从链式复制

#同步已有数据

[root@server52 ~]# mysqldump -uroot -p123456 bbsdb > bbsdb.sql

[root@server52 ~]# ls

bbsdb.sql

[root@server52 ~]# cat bbsdb.sql

-- MySQL dump 10.14 Distrib 5.5.56-MariaDB, for Linux (x86\_64)

--

-- Host: localhost Database: bbsdb

-- ------------------------------------------------------

-- Server version 5.5.56-MariaDB

/\*!40101 SET @OLD\_CHARACTER\_SET\_CLIENT=@@CHARACTER\_SET\_CLIENT \*/;

/\*!40101 SET @OLD\_CHARACTER\_SET\_RESULTS=@@CHARACTER\_SET\_RESULTS \*/;

/\*!40101 SET @OLD\_COLLATION\_CONNECTION=@@COLLATION\_CONNECTION \*/;

/\*!40101 SET NAMES utf8 \*/;

/\*!40103 SET @OLD\_TIME\_ZONE=@@TIME\_ZONE \*/;

/\*!40103 SET TIME\_ZONE='+00:00' \*/;

/\*!40014 SET @OLD\_UNIQUE\_CHECKS=@@UNIQUE\_CHECKS, UNIQUE\_CHECKS=0 \*/;

/\*!40014 SET @OLD\_FOREIGN\_KEY\_CHECKS=@@FOREIGN\_KEY\_CHECKS, FOREIGN\_KEY\_CHECKS=0 \*/;

/\*!40101 SET @OLD\_SQL\_MODE=@@SQL\_MODE, SQL\_MODE='NO\_AUTO\_VALUE\_ON\_ZERO' \*/;

/\*!40111 SET @OLD\_SQL\_NOTES=@@SQL\_NOTES, SQL\_NOTES=0 \*/;

--

-- Table structure for table `t1`

--

DROP TABLE IF EXISTS `t1`;

/\*!40101 SET @saved\_cs\_client = @@character\_set\_client \*/;

/\*!40101 SET character\_set\_client = utf8 \*/;

CREATE TABLE `t1` (

`id` int(11) DEFAULT NULL

) ENGINE=InnoDB DEFAULT CHARSET=utf8;

/\*!40101 SET character\_set\_client = @saved\_cs\_client \*/;

--

-- Dumping data for table `t1`

--

LOCK TABLES `t1` WRITE;

/\*!40000 ALTER TABLE `t1` DISABLE KEYS \*/;

INSERT INTO `t1` VALUES (100),(101),(102);

/\*!40000 ALTER TABLE `t1` ENABLE KEYS \*/;

UNLOCK TABLES;

/\*!40103 SET TIME\_ZONE=@OLD\_TIME\_ZONE \*/;

/\*!40101 SET SQL\_MODE=@OLD\_SQL\_MODE \*/;

/\*!40014 SET FOREIGN\_KEY\_CHECKS=@OLD\_FOREIGN\_KEY\_CHECKS \*/;

/\*!40014 SET UNIQUE\_CHECKS=@OLD\_UNIQUE\_CHECKS \*/;

/\*!40101 SET CHARACTER\_SET\_CLIENT=@OLD\_CHARACTER\_SET\_CLIENT \*/;

/\*!40101 SET CHARACTER\_SET\_RESULTS=@OLD\_CHARACTER\_SET\_RESULTS \*/;

/\*!40101 SET COLLATION\_CONNECTION=@OLD\_COLLATION\_CONNECTION \*/;

/\*!40111 SET SQL\_NOTES=@OLD\_SQL\_NOTES \*/;

-- Dump completed on 2018-11-12 13:14:54

[root@server52 ~]# cat bbsdb.sql | grep -i insert

INSERT INTO `t1` VALUES (100),(101),(102);

[root@server52 ~]# scp bbsdb.sql 192.168.4.53:/root

root@192.168.4.53's password:

bbsdb.sql 100% 1788 546.6KB/s 00:00

[root@server53 ~]# systemctl start mariadb

[root@server53 ~]# mysql -uroot -p123456

MariaDB [(none)]> create database bbsdb;

Query OK, 1 row affected (0.00 sec)

MariaDB [(none)]> use bbsdb

Database changed

MariaDB [bbsdb]> source /root/bbsdb.sql

MariaDB [bbsdb]> select \* from t1;

+------+

| id |

+------+

| 100 |

| 101 |

| 102 |

+------+

3 rows in set (0.00 sec)

#修改同步用户

[root@server51 ~]# mysql -uroot -p123456

MariaDB [(none)]> update mysql.user set host='%' where user='slaveuser';

Query OK, 1 row affected (0.01 sec)

Rows matched: 1 Changed: 1 Warnings: 0

MariaDB [(none)]> flush privileges;

Query OK, 0 rows affected (0.00 sec)

MariaDB [(none)]> show grants for slaveuser;

+----------------------------------------------------------------------------------------------------------------------+

| Grants for slaveuser@% |

+----------------------------------------------------------------------------------------------------------------------+

| GRANT REPLICATION SLAVE ON \*.\* TO 'slaveuser'@'%' IDENTIFIED BY PASSWORD '\*6BB4837EB74329105EE4568DDA7DC67ED2CA2AD9' |

+----------------------------------------------------------------------------------------------------------------------+

1 row in set (0.00 sec)

[root@server52 ~]# mysql -uroot -p123456

MariaDB [(none)]> grant replication slave on \*.\* to slaveuser@'%' identified by '123456';

Query OK, 0 rows affected (0.00 sec)

[root@server52 ~]# vim /etc/my.cnf

[root@server52 ~]# cat /etc/my.cnf | grep -v ^$ | grep -v ^#

[mysqld]

server\_id=52

log\_bin=server52

binlog\_format="mixed"

log\_slave\_updates //开启联级复制

character\_set\_server='utf8'

datadir=/var/lib/mysql

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

symbolic-links=0

[mysqld\_safe]

log-error=/var/log/mariadb/mariadb.log

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

!includedir /etc/my.cnf.d

[root@server52 ~]# systemctl restart mariadb

[root@server52 ~]# mysql -uroot -p123456

MariaDB [(none)]> show slave status\G

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* 1. row \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Slave\_IO\_State: Waiting for master to send event

Master\_Host: 192.168.4.51

Master\_User: slaveuser

Master\_Port: 3306

Connect\_Retry: 60

Master\_Log\_File: server51.000002

Read\_Master\_Log\_Pos: 561

Relay\_Log\_File: mariadb-relay-bin.000008

Relay\_Log\_Pos: 528

Relay\_Master\_Log\_File: server51.000002

Slave\_IO\_Running: Yes

Slave\_SQL\_Running: Yes

MariaDB [(none)]> show master status\G

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* 1. row \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

File: server52.000003

Position: 245

Binlog\_Do\_DB:

Binlog\_Ignore\_DB:

1 row in set (0.00 sec)

[root@server53 ~]# vim /etc/my.cnf

[root@server53 ~]# cat /etc/my.cnf | grep -v ^$ | grep -v ^#

[mysqld]

server\_id=53

character\_set\_server='utf8'

datadir=/var/lib/mysql

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

symbolic-links=0

[mysqld\_safe]

log-error=/var/log/mariadb/mariadb.log

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

!includedir /etc/my.cnf.d

[root@server53 ~]# systemctl restart mariadb

[root@server53 ~]# mysql -h192.168.4.52 -uslaveuser -p123456

MariaDB [(none)]> exit

Bye

[root@server53 ~]# mysql -uroot -p123456

MariaDB [(none)]> show slave status\G

Empty set (0.00 sec)

MariaDB [(none)]> reset slave;

Query OK, 0 rows affected (0.00 sec)

MariaDB [(none)]> change master to

-> master\_host="192.168.4.52",

-> master\_user="slaveuser",

-> master\_password="123456",

-> master\_log\_file="server52.000003",

-> master\_log\_pos=245;

MariaDB [(none)]> start slave;

Query OK, 0 rows affected (0.00 sec)

MariaDB [(none)]> show slave status \G

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* 1. row \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Slave\_IO\_State: Waiting for master to send event

Master\_Host: 192.168.4.52

Master\_User: slaveuser

Master\_Port: 3306

Connect\_Retry: 60

Master\_Log\_File: server52.000003

Read\_Master\_Log\_Pos: 245

Relay\_Log\_File: mariadb-relay-bin.000002

Relay\_Log\_Pos: 528

Relay\_Master\_Log\_File: server52.000003

Slave\_IO\_Running: Yes

Slave\_SQL\_Running: Yes

#测试

[root@room8pc205 ~]# mysql -h192.168.4.51 -uadmin -p123456

MariaDB [(none)]> use bbsdb;

Reading table information for completion of table and column names

You can turn off this feature to get a quicker startup with -A

Database changed

MariaDB [bbsdb]> create table t2(name char(10));

Query OK, 0 rows affected (0.02 sec)

MariaDB [bbsdb]> insert into t2 values('zhangsan'),('lisi'),('wangwu');

Query OK, 3 rows affected (0.02 sec)

Records: 3 Duplicates: 0 Warnings: 0

MariaDB [bbsdb]> select \* from t2;

+----------+

| name |

+----------+

| zhangsan |

| lisi |

| wangwu |

+----------+

3 rows in set (0.00 sec)

MariaDB [(none)]> select @@hostname;

+------------+

| @@hostname |

+------------+

| server52 |

+------------+

1 row in set (0.00 sec)

MariaDB [(none)]> select \* from bbsdb.t2;

+----------+

| name |

+----------+

| zhangsan |

| lisi |

| wangwu |

+----------+

3 rows in set (0.00 sec)

MariaDB [(none)]> select @@hostname

-> ;

+------------+

| @@hostname |

+------------+

| server53 |

+------------+

1 row in set (0.00 sec)

MariaDB [(none)]> select \* from bbsdb.t2;

+----------+

| name |

+----------+

| zhangsan |

| lisi |

| wangwu |

+----------+

3 rows in set (0.00 sec)

##互为主从

#用server53和server54作演示

[root@server53 ~]# mysql -uroot -p123456

MariaDB [(none)]> stop slave;

Query OK, 0 rows affected (0.01 sec)

MariaDB [(none)]> reset slave;

Query OK, 0 rows affected (0.04 sec)

MariaDB [(none)]> reset master;

ERROR 1186 (HY000): Binlog closed, cannot RESET MASTER

MariaDB [(none)]> drop database bbsdb;

Query OK, 2 rows affected (0.04 sec)

MariaDB [(none)]> show databases;

+--------------------+

| Database |

+--------------------+

| information\_schema |

| mysql |

| performance\_schema |

| test |

+--------------------+

4 rows in set (0.00 sec)

[root@server53 ~]# vim /etc/my.cnf

[root@server53 ~]# cat /etc/my.cnf | grep -v ^$ | grep -v ^#

[mysqld]

server\_id=53

log\_bin=server53

binlog\_format="mixed"

character\_set\_server='utf8'

datadir=/var/lib/mysql

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

symbolic-links=0

[mysqld\_safe]

log-error=/var/log/mariadb/mariadb.log

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

!includedir /etc/my.cnf.d

[root@server53 ~]# systemctl restrat mariadb

Unknown operation 'restrat'.

[root@server53 ~]# systemctl restart mariadb

[root@server53 ~]# ls /var/lib/mysql/server53.\*

/var/lib/mysql/server53.000001 /var/lib/mysql/server53.index

[root@server53 ~]# mysql -uroot -p123456

MariaDB [(none)]> grant replication slave on \*.\* to repluser@'192.168.4.54' identified by '123456';

Query OK, 0 rows affected (0.00 sec)

MariaDB [(none)]> show slave status;

Empty set (0.00 sec)

MariaDB [(none)]> show master status;

+-----------------+----------+--------------+------------------+

| File | Position | Binlog\_Do\_DB | Binlog\_Ignore\_DB |

+-----------------+----------+--------------+------------------+

| server53.000001 | 400 | | |

+-----------------+----------+--------------+------------------+

1 row in set (0.00 sec)

[root@server54 ~]# vim /etc/my.cnf

[root@server54 ~]# cat /etc/my.cnf | grep -v ^$ | grep -v ^#

[mysqld]

server\_id=54

log\_bin=server54

binlog\_format="mixed"

character\_set\_server='utf8'

datadir=/var/lib/mysql

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

symbolic-links=0

[mysqld\_safe]

log-error=/var/log/mariadb/mariadb.log

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

!includedir /etc/my.cnf.d

[root@server54 ~]# systemctl restart mariadb

[root@server54 ~]# ls /var/lib/mysql/server54.\*

/var/lib/mysql/server54.000001 /var/lib/mysql/server54.index

[root@server54 ~]# mysql -uroot -p123456

Welcome to the MariaDB monitor. Commands end with ; or \g.

Your MariaDB connection id is 2

Server version: 5.5.56-MariaDB MariaDB Server

Copyright (c) 2000, 2017, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> grant replication slave on \*.\* to repluser@'192.168.4.53' identified by '123456';

Query OK, 0 rows affected (0.00 sec)

MariaDB [(none)]> show slave status;

Empty set (0.00 sec)

MariaDB [(none)]> show master status;

+-----------------+----------+--------------+------------------+

| File | Position | Binlog\_Do\_DB | Binlog\_Ignore\_DB |

+-----------------+----------+--------------+------------------+

| server54.000001 | 400 | | |

+-----------------+----------+--------------+------------------+

1 row in MariaDB [(none)]> change master to

-> master\_host='192.168.4.53',

-> master\_user='repluser',

-> master\_password='123456',

-> master\_log\_file="server53.000001",

-> master\_log\_pos=400;

Query OK, 0 rows affected (0.06 sec)

MariaDB [(none)]> start slave;

Query OK, 0 rows affected (0.00 sec)

MariaDB [(none)]> show slave status\G

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* 1. row \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Slave\_IO\_State: Waiting for master to send event

Master\_Host: 192.168.4.53

Master\_User: repluser

Master\_Port: 3306

Connect\_Retry: 60

Master\_Log\_File: server53.000001

Read\_Master\_Log\_Pos: 400

Relay\_Log\_File: mariadb-relay-bin.000002

Relay\_Log\_Pos: 528

Relay\_Master\_Log\_File: server53.000001

Slave\_IO\_Running: Yes

Slave\_SQL\_Running: Yes

Replicate\_Do\_DB:

Replicate\_Ignore\_DB:

Replicate\_Do\_Table:

Replicate\_Ignore\_Table:

Replicate\_Wild\_Do\_Table:

Replicate\_Wild\_Ignore\_Table:

Last\_Errno: 0

Last\_Error:

Skip\_Counter: 0

Exec\_Master\_Log\_Pos: 400

Relay\_Log\_Space: 824

Until\_Condition: None

Until\_Log\_File:

Until\_Log\_Pos: 0

Master\_SSL\_Allowed: No

Master\_SSL\_CA\_File:

Master\_SSL\_CA\_Path:

Master\_SSL\_Cert:

Master\_SSL\_Cipher:

Master\_SSL\_Key:

Seconds\_Behind\_Master: 0

Master\_SSL\_Verify\_Server\_Cert: No

Last\_IO\_Errno: 0

Last\_IO\_Error:

Last\_SQL\_Errno: 0

Last\_SQL\_Error:

Replicate\_Ignore\_Server\_Ids:

Master\_Server\_Id: 53

1 row in set (0.00 sec)

set (0.00 sec)

MariaDB [(none)]> show master status;

+-----------------+----------+--------------+------------------+

| File | Position | Binlog\_Do\_DB | Binlog\_Ignore\_DB |

+-----------------+----------+--------------+------------------+

| server54.000001 | 400 | | |

+-----------------+----------+--------------+------------------+

1 row in set (0.00 sec)

MaMariaDB [(none)]> select @@hostname;

+------------+

| @@hostname |

+------------+

| server53 |

+------------+

1 row in set (0.00 sec)

riaDB [(none)]> change master to

-> master\_host='192.168.4.54',

-> master\_user='repluser',

-> master\_password='123456',

-> master\_log\_file='server54.000001',

-> master\_log\_pos=400;

Query OK, 0 rows affected (0.06 sec)

MariaDB [(none)]> start slave;

Query OK, 0 rows affected (0.00 sec)

MariaDB [(none)]> show slave status\G

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* 1. row \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Slave\_IO\_State: Waiting for master to send event

Master\_Host: 192.168.4.54

Master\_User: repluser

Master\_Port: 3306

Connect\_Retry: 60

Master\_Log\_File: server54.000001

Read\_Master\_Log\_Pos: 400

Relay\_Log\_File: mariadb-relay-bin.000002

Relay\_Log\_Pos: 528

Relay\_Master\_Log\_File: server54.000001

Slave\_IO\_Running: Yes

Slave\_SQL\_Running: Yes

##测试主主结构

MariaDB [(none)]> select @@hostname;

+------------+

| @@hostname |

+------------+

| server53 |

+------------+

1 row in set (0.00 sec)

MariaDB [(none)]> create database gamedb;

Query OK, 1 row affected (0.00 sec)

MariaDB [(none)]> show databases;

+--------------------+

| Database |

+--------------------+

| information\_schema |

| gamedb |

| mysql |

| performance\_schema |

| test |

+--------------------+

5 rows in set (0.00 sec)

MariaDB [(none)]> select @@hostname;

+------------+

| @@hostname |

+------------+

| server54 |

+------------+

1 row in set (0.00 sec)

MariaDB [(none)]> show databases;

+--------------------+

| Database |

+--------------------+

| information\_schema |

| gamedb |

| mysql |

| performance\_schema |

| test |

+--------------------+

5 rows in set (0.00 sec)

MariaDB [(none)]> use gamedb;

Database changed

MariaDB [gamedb]> create table t1(id int);

Query OK, 0 rows affected (0.02 sec)

MariaDB [gamedb]> insert into t1 values(100);

Query OK, 1 row affected (0.02 sec)

MariaDB [gamedb]> select \* from t1;

+------+

| id |

+------+

| 100 |

+------+

1 row in set (0.00 sec)

MariaDB [(none)]> select @@hostname;

+------------+

| @@hostname |

+------------+

| server53 |

+------------+

1 row in set (0.00 sec)

MariaDB [(none)]> select \* from gamedb.t1;

+------+

| id |

+------+

| 100 |

+------+

1 row in set (0.00 sec)

##半同步复制

#用server51和server52测试

[root@server51 ~]# vim /etc/my.cnf

[root@server51 ~]# cat /etc/my.cnf | grep -v ^$ | grep -v ^#

[mysqld]

plugin-load=rpl\_semi\_sync\_master=semisync\_master.so

rpl\_semi\_sync\_master\_enabled=1

character\_set\_server='utf8'

server\_id=51

log\_bin=server51

binlog\_format='mixed'

datadir=/var/lib/mysql

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

symbolic-links=0

[mysqld\_safe]

log-error=/var/log/mariadb/mariadb.log

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

!includedir /etc/my.cnf.d

[root@server51 ~]# systemctl restart mariadb

[root@server51 ~]# mysql -uroot -p123456

MariaDB [(none)]> show variables like '%have\_dynamic%';

+----------------------+-------+

| Variable\_name | Value |

+----------------------+-------+

| have\_dynamic\_loading | YES |

+----------------------+-------+

1 row in set (0.00 sec)

MariaDB [(none)]> show variables like '%semi\_sync%';

+------------------------------------+-------+

| Variable\_name | Value |

+------------------------------------+-------+

| rpl\_semi\_sync\_master\_enabled | ON |

| rpl\_semi\_sync\_master\_timeout | 10000 |

| rpl\_semi\_sync\_master\_trace\_level | 32 |

| rpl\_semi\_sync\_master\_wait\_no\_slave | ON |

+------------------------------------+-------+

4 rows in set (0.00 sec)

[root@server52 ~]# vim /etc/my.cnf

[root@server52 ~]# cat /etc/my.cnf | grep -v ^$ | grep -v ^#

[mysqld]

plugin-load=rpl\_semi\_sync\_slave=semisync\_slave.so

rpl\_semi\_sync\_slave\_enabled=1

server\_id=52

log\_bin=server52

binlog\_format="mixed"

log\_slave\_updates

character\_set\_server='utf8'

datadir=/var/lib/mysql

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

symbolic-links=0

[mysqld\_safe]

log-error=/var/log/mariadb/mariadb.log

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

!includedir /etc/my.cnf.d

[root@server52 ~]# systemctl restart mariadb

[root@server52 ~]# mysql -uroot -p123456

Welcome to the MariaDB monitor. Commands end with ; or \g.

Your MariaDB connection id is 4

Server version: 5.5.56-MariaDB MariaDB Server

Copyright (c) 2000, 2017, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> show variables like '%have\_dynamic%';

+----------------------+-------+

| Variable\_name | Value |

+----------------------+-------+

| have\_dynamic\_loading | YES |

+----------------------+-------+

1 row in set (0.00 sec)

MariaDB [(none)]> show variables like '%semi\_sync%';

+---------------------------------+-------+

| Variable\_name | Value |

+---------------------------------+-------+

| rpl\_semi\_sync\_slave\_enabled | ON |

| rpl\_semi\_sync\_slave\_trace\_level | 32 |

+---------------------------------+-------+

2 rows in set (0.00 sec)

#注意，如果是主从从结构，则中间的从需要同时启动master和slave