

centos 7下配置MySQL主从复制 (Master-Slave) 记录

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Mysql作为目前世界上使用最广泛的免费数据库，在实际的生产环境中，由单台Mysql作为独立的数据库是完全不能满足实际需求的，无论是在安全性，高可用性以及高并发等各个方面；

一、MySQL的安装与配置

具体的安装过程，参

考 <http://blog.csdn.net/liulihui1988/article/details/78050671>

二、MySQL主从复制

场景描述：

主数据库服务器：centos-node6，从数据库服务器：centos-node7，均已安装MySQL，并且无应用数据。

2.1 Master主数据库上进行配置，修改配置文件/etc/my.cnf，添加如下配置

vim /etc/**my**.cnf

设置：log-bin=mysql-bin #用yum安装的mysql数据库/etc/my.cnf文件只是满足基本要求，mysql主从时，查看master日志时没有数据显示，因此

在/etc/my.cnf文件中添加一行 log-bin=mysql-bin

设置：server-id = 1 #此值不能和从数据库的一样，

设置：binlog-ignore-db=mysql #表示哪些库不同步，每个不同步的库写一行

```
1 centos-node5 2 centos-node6 x 3 centos-node7 4 centos-node8 5 centos-node7

# For advice on how to change settings please see
# http://dev.mysql.com/doc/refman/5.7/en/server-configuration-defaults.html
# *** DO NOT EDIT THIS FILE. It's a template which will be copied to the
# *** default location during install, and will be replaced if you
# *** upgrade to a newer version of MySQL.

[mysql]
default-character-set=utf8
[mysqld]
default-storage-engine=INNODB
character_set_server=utf8

log-bin=mysql-bin

# Remove leading # and set to the amount of RAM for the most important data
# cache in MySQL. Start at 70% of total RAM for dedicated server, else 10%.
# innodb_buffer_pool_size = 128M

# Remove leading # to turn on a very important data integrity option: logging
# changes to the binary log between backups.
# log_bin

# These are commonly set, remove the # and set as required.
# basedir = .....
# datadir = .....
# port = .....
server_id = 1 #设置centos-node6为主数据库 Master
binlog-ignore-db=mysql #表示哪些库不同步,每个不同步的库写一行
# socket = .....

# Remove leading # to set options mainly useful for reporting servers.
# The server defaults are faster for transactions and fast SELECTs.
# Adjust sizes as needed, experiment to find the optimal values.
# join_buffer_size = 128M
# sort_buffer_size = 2M
# read_buffer_size = 2M
```

<http://blog.csdn.net/liulihui1988>

配置完成重新启动Master数据库;

```
# systemctl restart mysql
```

• 1

进入Master数据库安装目录 /usr/local/mysql/bin/

```
# cd /usr/local/mysql/bin/
```

• 1

执行以下命令登陆本地数据库:

```
# mysql -uroot -p123456
```

• 1

执行以下命令查看Master的状态:

```
mysql> show master status;
```

• 1

```

-rwxr-xr-x. 1 mysql mysql 109100 Nov 28 2016 zlib.decompress
[root@centos-node6 bin]# mysql -uroot -p123456
mysql: [Warning] Using a password on the command line interface can be insecure.
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 4
Server version: 5.7.17-log MySQL Community Server (GPL)

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affiliates. Other names may be trademarks of their respective
owners.

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

mysql> show master status;
+-----+-----+-----+-----+-----+
| File           | Position | Binlog_Do_DB | Binlog_Ignore_DB | Executed_Gtid_Set |
+-----+-----+-----+-----+-----+
| mysql-bin.000003 | 154      |              | mysql              |                    |
+-----+-----+-----+-----+-----+
1 row in set (0.01 sec)

mysql>

```

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记录File的mysql-bin.000003 与 Position的154, 等会要用到。

分配一个数据库账号给Slave从数据库 Server,是从服务器能够访问Master数据库;

```
mysql> grant replication slave on *.* to 'slave'@'centos-node7' identified by '123456'
```

查询mysql 数据库中的user表, 查看已分配的用户权限;select * from user;

```

mysql> select * from user;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Host      | User      | Select_priv | Insert_priv | Update_priv | Delete_priv | Create_priv | Drop_priv | Ex_Priv | Alter_priv | Show_db_priv | Super_priv | Create_tmp_table_priv | Lock_tables_priv | Execute_priv | Alter_routine_priv | Create_user_priv | Event_priv | Trigger_priv | Create_tablespace_priv | ssl_type | ssl_cipher | x509_certificate | authentication_string | password_expired | password_last_validity |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| localhost | root      | Y           | Y           | Y           | Y           | Y           | Y           | Y       | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           |
| localhost | mysql_native_password | Y           | Y           | Y           | Y           | Y           | Y           | Y       | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           |
| localhost | mysql.sys | N           | N           | N           | N           | N           | N           | N       | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           |
| localhost | mysql_native_password | *THISISNOTAVALIDPASSWORDTHATCANBEUSEDHERE | N           | N           | N           | N           | N           | N       | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           |
| %         | root      | Y           | Y           | Y           | Y           | Y           | Y           | Y       | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           |
| centos-node7 | slave     | Y           | Y           | Y           | Y           | Y           | Y           | Y       | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           |
| centos-node5 | amoeba    | Y           | Y           | Y           | Y           | Y           | Y           | Y       | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           | Y           |
| %         | mysql_native_password | *6BB4837EB74329105EE4568DDA7DC67ED2CA2AD9 | N           | N           | N           | N           | N           | N       | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           | N           |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

<http://blog.csdn.net/liulihui1988>

2.2 从服务器Slave server数据库配置, 修改配置文件/etc/my.cnf, 添加如下配置

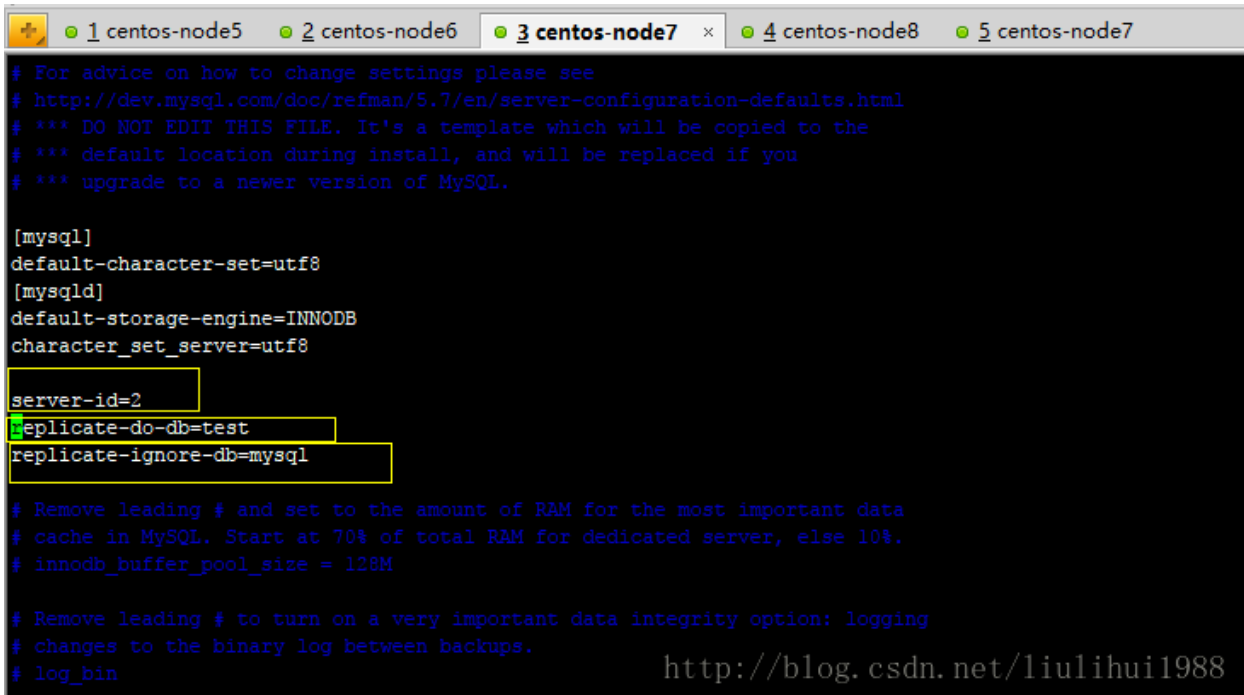
`vim /etc/my.cnf`

• 1

设置: `server-id=2` 此值不能和主数据库的一样, 唯一

设置: `replicate-do-db = test` #可以指定要复制的库

设置: `replicate-ignore-db = mysql` #忽略的库



```
# For advice on how to change settings please see
# http://dev.mysql.com/doc/refman/5.7/en/server-configuration-defaults.html
# *** DO NOT EDIT THIS FILE. It's a template which will be copied to the
# *** default location during install, and will be replaced if you
# *** upgrade to a newer version of MySQL.

[mysql]
default-character-set=utf8
[mysqld]
default-storage-engine=INNODB
character_set_server=utf8

server-id=2
replicate-do-db=test
replicate-ignore-db=mysql

# Remove leading # and set to the amount of RAM for the most important data
# cache in MySQL. Start at 70% of total RAM for dedicated server, else 10%.
# innodb_buffer_pool_size = 128M

# Remove leading # to turn on a very important data integrity option: logging
# changes to the binary log between backups.
# log_bin
```

配置完成重新启动Slave数据库;

`# systemctl restart mysql`

• 1

进入Master数据库安装目录 `/usr/local/mysql/bin/`

`# cd /usr/local/mysql/bin/`

• 1

执行以下命令登陆本地数据库:

`# mysql -uroot -p123456`

• 1

- 执行同步SQL语句

`mysql> CHANGE MASTER TO`

- > `Master_Host=centos-node6,`
- > `Master_User=slave,`
- > `Master_Password=123456,`
- > `Master_Port=3306,`

```
-> Master_Log_File=mysql-bin.0000003,  
-> Master_Log_File=154;
```

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

启动Slave同步进程:

```
mysql> start slave;
```

- 1

主从同步检查:

```
mysql> show slave status\G
```

- 1

```
mysql> mysql> show slave status\G  
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for  
mysql> show slave status\G  
***** 1. row *****  
Slave_IO_State: Waiting for master to send event  
Master_Host: centos-node6  
Master_User: slave  
Master_Port: 3306  
Connect_Retry: 60  
Master_Log_File: mysql-bin.000003  
Read_Master_Log_Pos: 154  
Relay_Log_File: centos-node7-relay-bin.000006  
Relay_Log_Pos: 367  
Relay_Master_Log_File: mysql-bin.000003  
Slave_IO_Running: Yes  
Slave_SQL_Running: Yes  
Replicate_Do_DB: test  
Replicate_Ignore_DB: mysql  
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: 154  
Relay_Log_Space: 794  
Until_Condition: None  
Until_Log_File:  
Until_Log_Pos: 0  
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```

如果Slave_IO_Running 与 Slave_SQL_Running 的值都必须为YES, 表明成功了;

三、验证主从复制效果

在Master服务器test数据库上创建一个表t_class;是否在Slave从服务器test数据库中自动创建t_class;

3.1 Master主服务器test数据库中执行以下命令;

```
mysql> create table t_class(id int ,name varchar(16))
```

• 1

3.2 查询Slave服务器中的test数据库中是否有t_class表;

结果肯定是有的咯，本文来自网络帖子：

<http://blog.csdn.net/ljuncong/article/details/38925569>

: <http://heylinux.com/archives/1004.html>

仅供个人学习笔记为主;