

# **Replikasi Database Master-Slave pada Linux Ubuntu**



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**Ip Master 192.168.100.96**

**Ip Slave 192.168.100.95**

1. Install MariaDB pada Kedua Ubuntu yang akan dipakai

```
root@ferdinand-VirtualBox:/home/ferdinand# sudo apt install mariadb-server
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
mariadb-server is already the newest version (1:10.6.16-0ubuntu0.22.04.1).
```

2. Ubah Konfigurasi MariaDB Master

`sudo nano /etc/mysql/mariadb.conf.d/50-server.cnf`

# baris 29, ubah IP bind-address

`bind-address = 192.168.100.96`

# baris 74, lepas comment server-id = 1

# baris 75, lepas comment log\_bin = /var/log/mysql/mysql-bin.log

```
root@ferdinand-VirtualBox: /home/ferdinand
File Edit View Search Terminal Help
GNU nano 6.2 /etc/mysql/mariadb.conf.d/50-server.cnf *
#
# These groups are read by MariaDB server.
# Use it for options that only the server (but not clients) should see
# this is read by the standalone daemon and embedded servers
[server]
# this is only for the mysqld standalone daemon
[mysqld]
#
# * Basic Settings
#
#user                    = mysql
pid-file                 = /run/mysqld/mysqld.pid
basedir                 = /usr
#datadir                 = /var/lib/mysql
#tmpdir                  = /tmp
```

3. Restart service MariaDB

```
root@ferdinand-VirtualBox:/home/ferdinand# sudo systemctl restart mysql
```

4. Buat user untuk akses replikasi

```
mysql -u root -p
```

```
GRANT REPLICATION SLAVE ON *.* TO 'replica'@'192.168.100.95' IDENTIFIED BY 'secret';
```

```
FLUSH PRIVILEGES;
```

```
MariaDB [(none)]> GRANT REPLICATION SLAVE ON *.* TO 'replica'@'192.168.100.95' IDENTIFIED BY 'secret';  
Query OK, 0 rows affected (0,003 sec)
```

```
MariaDB [(none)]> FLUSH PRIVILEGES;  
Query OK, 0 rows affected (0,001 sec)
```

5. Tampilkan status master. File dan Position dibutuhkan pada saat konfigurasi Slave.

```
MariaDB [(none)]> SHOW MASTER STATUS;  
+-----+-----+-----+-----+  
| File           | Position | Binlog_Do_DB | Binlog_Ignore_DB |  
+-----+-----+-----+-----+  
| mysql-bin.000002 |      667 |              |                  |  
+-----+-----+-----+-----+  
1 row in set (0,000 sec)
```

6. Konfigurasi Server MariaDB Slave

```
sudo nano /etc/mysql/mariadb.conf.d/50-server.cnf
```

```
# baris 29, ubah IP bind-addressbind-address = 192.168.100.65
```

```
# baris 74, lepas comment. Ganti dengan nomor lain, server-id = 2
```

```
# baris 75, lepas comment log_bin = /var/log/mysql/mysql-bin.log
```

```
root@slave-VirtualBox: /home/slave  
File Edit View Search Terminal Help  
GNU nano 6.2 /etc/mysql/mariadb.conf.d/50-server.cnf *  
  
# Broken reverse DNS slows down connections considerably and name resolution is  
# safe to skip if there are no "host by domain name" access grants  
#skip-name-resolve  
  
# Instead of skip-networking the default is now to listen only on  
# localhost which is more compatible and is not less secure.  
bind-address = 192.168.100.95  
  
#  
# * Fine Tuning  
#
```

7. Restart service MariaDB

```
root@slave-VirtualBox:/home/slave# sudo systemctl restart mysql
```

8. Konfigurasi koneksi ke Master

```
root@slave-VirtualBox:/home/slave# mysql -u root -p
```

```
MariaDB [(none)]> CHANGE MASTER TO MASTER_HOST='192.168.100.96', MASTER_USER='re  
plica', MASTER_PASSWORD='secret', MASTER_LOG_FILE='mysql-bin.000002', MASTER_LOG  
_POS=667;  
Query OK, 0 rows affected (0,032 sec)
```

#### 9. Jalankan slave

START SLAVE;

```
MariaDB [(none)]> START SLAVE;  
Query OK, 0 rows affected (0,001 sec)
```

Jika tidak ada masalah pada saat menjalankan slave, lepas kunci database pada server master

mysql -u root -p

UNLOCK TABLES;

```
MariaDB [(none)]> mysql -u root -p
```

```
MariaDB [(none)]> UNLOCK TABLES;  
Query OK, 0 rows affected (0,000 sec)
```

#### 10. Tampilkan status slave

SHOW SLAVE STATUS \G

```
root@slave-VirtualBox:/home/slave  
File Edit View Search Terminal Help  
MariaDB [(none)]> SHOW SLAVE STATUS \G  
***** 1. row *****  
Slave_IO_State: Waiting for master to send event  
Master_Host: 192.168.100.96  
Master_User: replica  
Master_Port: 3306  
Connect_Retry: 60  
Master_Log_File: mysql-bin.000002  
Read_Master_Log_Pos: 667  
Relay_Log_File: mysqld-relay-bin.000002  
Relay_Log_Pos: 555  
Relay_Master_Log_File: mysql-bin.000002  
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
```

## Pengujian

### Membuat Database pada Master

```
root@ferdinand-VirtualBox: /home/ferdinand
File Edit View Search Terminal Help
| mysql |
| performance_schema |
| sys |
+-----+
5 rows in set (0,000 sec)

MariaDB [(none)]> DROP DATABASE Ferdinand;
Query OK, 0 rows affected (0,012 sec)

MariaDB [(none)]> SHOW DATABASES;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
4 rows in set (0,000 sec)

MariaDB [(none)]> CREATE DATABASE Ferdinand;
Query OK, 1 row affected (0,000 sec)
```

### Show Databases pada Slave

```
root@slave-VirtualBox: /home/slave
File Edit View Search Terminal Help
MariaDB [(none)]> SHOW DATABASES;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
4 rows in set (0,000 sec)

MariaDB [(none)]> SHOW DATABASES;
+-----+
| Database |
+-----+
| Ferdinand |
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
5 rows in set (0,000 sec)
```