

Role DATA - Simple Master / Slave

Master Server (Primary)

The following steps are required to configure a DATA server as master.

The first step is to create an appropriate configuration module. This is done with the following command:

Configure MySQL Master

```
cat <<EOF > /etc/my.cnf.d/jtel-master.cnf
# Custom MySQL settings for a specific SQL master server
#
# WARNING: This file is specific to the master server

[mysqld]
#
# Replication Options
#
# Specific options for MASTER role
#
server_id                = 1
binlog_format            = ROW
expire_logs_days        = 3
max_binlog_size          = 100M
log_bin                  = binlog
relay_log                = mysqld-relay-bin
relay_log_index          = mysqld-relay-bin.index
relay_log_info_file      = relay-log.info
EOF
```

ACHTUNG



The value `server_id` appears both in the configuration modules for master servers and in the configuration modules for slave servers. It is **important to ensure that this value is unique**. No DATA servers in a group may have the same `server_id`.

Next, a user is created with which the slave servers can connect to the master server - replace `<password>` with the corresponding password:

MySQL 8.x

Create replication user

```
mysql -u root -p<password> -v -e"CREATE USER 'repl'@'%' IDENTIFIED WITH mysql_native_password BY '<password>'"
mysql -u root -p<password> -v -e"GRANT REPLICATION SLAVE ON *.* TO 'repl'@'%"
mysql -u root -p<password> -v -e"FLUSH PRIVILEGES"
```

MySQL 5.6

Create replication user

```
mysql -u root -p<password> -v -e"CREATE USER 'repl'@'%' IDENTIFIED BY '<password>'"
mysql -u root -p<password> -v -e"GRANT REPLICATION SLAVE ON *.* TO 'repl'@'%"
mysql -u root -p<password> -v -e"FLUSH PRIVILEGES"
```

Afterwards the MySQL server must be restarted so that all settings are applied:

Restart the MySQL server

```
service mysqld restart
```

Keep only bin logs for 4 hours

This is **NOT RECOMMENDED**.

This step is necessary, on master servers with a high load and low disk capacity - replace <password> with the DB password:

Values to the system environment

```
echo "FLUSH LOGS;" > /home/jtel/purge.sql
echo "PURGE BINARY LOGS BEFORE NOW() - INTERVAL 4 HOUR;" >> /home/jtel/purge.sql

echo '#!/bin/bash' > /home/jtel/purge.sh
echo "mysql -uroot -p<password> < /home/jtel/purge.sql" >> /home/jtel/purge.sh
chmod 700 /home/jtel/purge.sh
mv /home/jtel/purge.sh /etc/cron.hourly/
```

Slave Server

The following steps are required to configure a DATA server as a slave. This is an unencrypted replication. Encrypted replication can be performed according to https://www.thomas-krenn.com/de/wiki/MySQL_Verbindungen_mit_SSL_versch%3%BCsseln.

The first step is to create an appropriate configuration module. This is done with the following command:

Configure MySQL slave

```
cat <<EOFF > /etc/my.cnf.d/jtel-slave.cnf
# Custom MySQL settings for a specific SQL slave server
#
# WARNING: This file is specific to the slave server

[mysqld]
# Specific options for SLAVE role
#
server_id                = 101
log_slave_updates
relay_log                = mysqld-relay-bin
relay_log_index          = mysqld-relay-bin.index
relay_log_info_file      = relay-log.info
skip-log-bin
EOFF
```

ACHTUNG



The value `server_id` appears both in the configuration modules for master servers and in the configuration modules for slave servers. It is **important to ensure that this value is unique**. No DATA servers in a group may have the same `server_id`.

Afterwards the MySQL server must be restarted so that all settings are applied:

Restart the MySQL server

```
service mysqld restart
```