

鼎甲迪备

GreatDB for 迪备 Catalog 安装配置指南

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本文档主要描述了如何安装 GreatDB 数据库，以及如何将其配置为迪备 Catalog 指引。后面章节主要分为两部分：一、安装 GreatDB 数据库二、配置 GreatDB 为迪备 Catalog。

- 操作系统: Kylin-Server-V10-SP3-General-Release-2303-ARM64.iso
- 数据库: GreatDB-1.0.0.6108032-GA-1-a3ac0d6c-Linux-glibc2.28-aarch64-minimal.tar.xz

备注: 实际的操作系统、数据库版本以正式发布的为准。

3.1 系统配置

1. 关闭防火墙

```
systemctl status firewalld
systemctl stop firewalld
systemctl disable firewalld
```

2. 关闭 selinux

```
getenforce
setenforce 0
sed -i '/^SELINUX=/c\'SELINUX=disabled /etc/selinux/config
```

3. 修改 /etc/security/limits.conf, 在文件末尾增加如下配置

greatdb	soft	core	unlimited
greatdb	hard	core	unlimited
greatdb	soft	nofile	1024000
greatdb	hard	nofile	1024000
greatdb	soft	nproc	1024000
greatdb	hard	nproc	1024000

3.2 安装 GreatDB 数据库

1. 创建用户

```
groupadd greatdb
useradd -g greatdb greatdb
passwd greatdb
```

2. 创建目录

```
mkdir -p /opt/greatdb/conf /var/lib/greatdb/dbdata/data3306/{data,log,tmp} /var/lib/
➔ greatdb/logs /opt/greatdb/avr
```

3. 上传安装包解压

```
cd /opt/greatdb/avr
tar -xvf GreatDB-1.0.0.6108032-GA-1-a3ac0d6c-Linux-glibc2.28-aarch64-minimal.tar.xz -C /
➔ opt/greatdb/avr
mv GreatDB-1.0.0.6108032-GA-1-a3ac0d6c-Linux-glibc2.28-aarch64-minimal greatdb
```

4. 修改目录权限

```
chown -R greatdb:greatdb /opt/greatdb
chown -R greatdb:greatdb /var/lib/greatdb
chown -R greatdb:greatdb /var/lib/greatdb/dbdata
chown -R greatdb:greatdb /var/lib/greatdb/dbdata/data3306
```

5. 添加 GreatDB 服务，在 systemd 中的服务名字为 greatdb-3306

```
cat >/usr/lib/systemd/system/greatdb-3306.service<<EOF
[Unit]
Description=greatdb-3306 Server
After=network.target

[Install]
WantedBy=multi-user.target

[Service]
User=greatdb
Group=greatdb

Type=simple
ExecStart=/opt/greatdb/avr/greatdb/bin/greatdbd --defaults-file=/opt/greatdb/conf/
↳greatdb3306.cnf
Restart=on-failure
LimitNOFILE=1024000
LimitNPROC=1024000
TimeoutStopSec=15
PrivateTmp=false
EOF

systemctl daemon-reload
```

6. 对 GreatDB 用户进行 visudo 授权

```
cat >/etc/sudoers.d/greatdb<<EOF
greatdb ALL=(ALL) NOPASSWD: /usr/bin/systemctl start greatdb-3306, /usr/bin/systemctl stop
↳greatdb-3306, /usr/bin/systemctl status greatdb-3306
EOF
```

7. 修改数据库配置文件，在/opt/greatdb/conf/greatdb3306.cnf 文件中增加下列配置

```
[mysqld]

user=greatdb
port=3306
server_id=3306165
admin_address='127.0.0.1'
admin_port=33062
create_admin_listener_thread=ON
mysqlx_port=33060

character_set_server=utf8mb4
collation_server=utf8mb4_0900_ai_ci
lower_case_table_names=1
local_infile=ON
secure_file_priv=''
skip_name_resolve=ON
default_time_zone='+8:00'
default_authentication_plugin=mysql_native_password
auto_increment_increment=1
auto_increment_offset=1
explicit_defaults_for_timestamp=ON
```

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```

sql_mode=STRICT_TRANS_TABLES,NO_ZERO_IN_DATE,NO_ZERO_DATE,ERROR_FOR_DIVISION_BY_ZERO,NO_
ENGINE_SUBSTITUTION

basedir=/opt/greatdb/avr/greatdb
datadir=/var/lib/greatdb/dbdata/data3306/data
tmpdir=/var/lib/greatdb/dbdata/data3306/tmp
pid_file=/var/lib/greatdb/dbdata/data3306/data/greatdb.pid
socket=/var/lib/greatdb/dbdata/data3306/data/greatdb.sock
mysqlx_socket=/var/lib/greatdb/dbdata/data3306/data/greatdbx.sock

max_connections=2000
max_connect_errors=1000000
open_files_limit=65535
back_log=1500
table_open_cache=10000
table_definition_cache=10000
thread_cache_size=1000

sort_buffer_size=4M
join_buffer_size=4M
read_buffer_size=4M
read_rnd_buffer_size=4M
bulk_insert_buffer_size=64M
tmp_table_size=64M
max_heap_table_size=64M
thread_stack=512K
net_buffer_length=16K
max_allowed_packet=1G

lock_wait_timeout=600
interactive_timeout=3600
wait_timeout=3600
net_read_timeout=86400
net_write_timeout=86400

log_timestamps=SYSTEM

log_error=/var/lib/greatdb/logs/error3306.log
log_error_verbosity=3

slow_query_log=ON
slow_query_log_file=/var/lib/greatdb/logs/slow3306.log
log_slow_verbosity=FULL
long_query_time=0.3

general_log_file=/var/lib/greatdb/logs/general3306.log

log_bin=/var/lib/greatdb/dbdata/data3306/log/binlog
binlog_format=ROW
sync_binlog=1
binlog_cache_size=4M
max_binlog_cache_size=4G
max_binlog_size=1G
binlog_expire_logs_seconds=2592000

```

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```
binlog_rows_query_log_events=ON
binlog_row_image=FULL
binlog_checksum=NONE
gtid_mode=ON
enforce_gtid_consistency=ON

relay_log=/var/lib/greatdb/dbdata/data3306/log/relaylog

relay_log_recovery=ON
slave_parallel_type=LOGICAL_CLOCK
slave_parallel_workers=16
binlog_transaction_dependency_tracking=WRITESET
slave_preserve_commit_order=ON
slave_pending_jobs_size_max=2G
slave_max_allowed_packet=1G

transaction_isolation=READ-COMMITTED
innodb_buffer_pool_size=2G
innodb_buffer_pool_instances=8
innodb_max_dirty_pages_pct=50

innodb_data_file_path=ibdata1:12M:autoextend

innodb_temp_data_file_path=ibtmp1:12M:autoextend:max:50G

innodb_log_group_home_dir=/var/lib/greatdb/dbdata/data3306/log
innodb_flush_log_at_trx_commit=1
innodb_log_buffer_size=32M
innodb_log_file_size=1G
innodb_log_files_in_group=4

innodb_undo_directory=/var/lib/greatdb/dbdata/data3306/log
innodb_max_undo_log_size=4G

innodb_open_files=65535
innodb_flush_method=O_DIRECT
innodb_flush_neighbors=0
innodb_flush_sync=ON
innodb_io_capacity=10000
innodb_io_capacity_max=20000
innodb_lru_scan_depth=4000
innodb_lock_wait_timeout=30
innodb_print_all_deadlocks=ON
innodb_online_alter_log_max_size=4G
innodb_print_ddl_logs=ON
innodb_read_io_threads=8
innodb_write_io_threads=8
innodb_doublewrite_pages=64
innodb_adaptive_hash_index=OFF
innodb_status_file=OFF

core-file
innodb_buffer_pool_in_core_file=OFF
```

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```
performance_schema=ON
performance_schema_show_processlist=ON
performance_schema_events_statements_history_size=1024
performance_schema_consumer_events_statements_history_long=ON

loose-plugin_load_add='mysql_clone.so'

[mysqldump]
quick
net_buffer_length=16K

[mysql]
no_auto_rehash
default_character_set=utf8mb4
```

8. 初始化实例

```
/opt/greatdb/avr/greatdb/bin/greatdbd --defaults-file=/opt/greatdb/conf/greatdb3306.cnf --
→ initialize-insecure
```

9. 检查日志

```
tail -f /var/lib/greatdb/logs/error3306.log
```

10. 启动数据库服务

```
sudo systemctl start greatdb-3306
sudo systemctl enable greatdb-3306
```

11. 登录数据库，修改用户密码和权限（此时 root 密码是空的）

登录数据库

```
/opt/greatdb/avr/greatdb/bin/greatdb --socket=/var/lib/greatdb/dbdata/data3306/data/
→ greatdb.sock
```

修改 root@localhost 密码

```
alter user 'root'@'localhost' identified by 'password';
```

创建 greatdb@%,root@% 账号

```
create user 'greatdb'@'%' identified by 'password';
create user 'root'@'%' identified by 'password';
```

赋权root@%

```
GRANT SELECT, INSERT, UPDATE, DELETE, CREATE, DROP, RELOAD, SHUTDOWN, PROCESS, FILE,
→ REFERENCES, INDEX, ALTER, SHOW DATABASES, SUPER, CREATE TEMPORARY TABLES, LOCK TABLES,
→ EXECUTE, REPLICATION SLAVE, REPLICATION CLIENT, CREATE VIEW, SHOW VIEW, CREATE ROUTINE,
→ ALTER ROUTINE, CREATE USER, EVENT, TRIGGER, CREATE TABLESPACE, CREATE ROLE, DROP ROLE ON
→ *.* TO `root`@`%` WITH GRANT OPTION;
```

```
GRANT APPLICATION_PASSWORD_ADMIN,AUDIT_ABORT_EXEMPT,AUDIT_ADMIN,AUTHENTICATION_POLICY_
→ ADMIN,BACKUP_ADMIN,BINLOG_ADMIN,BINLOG_ENCRYPTION_ADMIN,CLONE_ADMIN,CONNECTION_ADMIN,
```

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```

→ ENCRYPTION_KEY_ADMIN, FIREWALL_EXEMPT, FLUSH_OPTIMIZER_COSTS, FLUSH_STATUS, FLUSH_TABLES,
→ FLUSH_USER_RESOURCES, GROUP_REPLICATION_ADMIN, GROUP_REPLICATION_STREAM, INNODB_REDO_LOG_
→ ARCHIVE, INNODB_REDO_LOG_ENABLE, PASSWORDLESS_USER_ADMIN, PERSIST_RO_VARIABLES_ADMIN,
→ REPLICATION_APPLIER, REPLICATION_SLAVE_ADMIN, RESOURCE_GROUP_ADMIN, RESOURCE_GROUP_USER,
→ ROLE_ADMIN, SENSITIVE_VARIABLES_OBSERVER, SERVICE_CONNECTION_ADMIN, SESSION_VARIABLES_ADMIN,
→ SET_USER_ID, SHOW_ROUTINE, SYSTEM_USER, SYSTEM_VARIABLES_ADMIN, TABLE_ENCRYPTION_ADMIN, XA_
→ RECOVER_ADMIN ON *.* TO `root`@`%` WITH GRANT OPTION;

```

```
GRANT PROXY ON ``@`` TO `root`@`%` WITH GRANT OPTION;
```

赋权 greatdb@%

```

GRANT SELECT, INSERT, UPDATE, DELETE, CREATE, DROP, RELOAD, SHUTDOWN, PROCESS, FILE,
→ REFERENCES, INDEX, ALTER, SHOW DATABASES, SUPER, CREATE TEMPORARY TABLES, LOCK TABLES,
→ EXECUTE, REPLICATION SLAVE, REPLICATION CLIENT, CREATE VIEW, SHOW VIEW, CREATE ROUTINE,
→ ALTER ROUTINE, CREATE USER, EVENT, TRIGGER, CREATE TABLESPACE, CREATE ROLE, DROP ROLE ON
→ *.* TO `greatdb`@`%`;

```

```

GRANT APPLICATION_PASSWORD_ADMIN, AUDIT_ABORT_EXEMPT, AUDIT_ADMIN, AUTHENTICATION_POLICY_
→ ADMIN, BACKUP_ADMIN, BINLOG_ADMIN, BINLOG_ENCRYPTION_ADMIN, CLONE_ADMIN, CONNECTION_ADMIN,
→ ENCRYPTION_KEY_ADMIN, FIREWALL_EXEMPT, FLUSH_OPTIMIZER_COSTS, FLUSH_STATUS, FLUSH_TABLES,
→ FLUSH_USER_RESOURCES, GROUP_REPLICATION_ADMIN, GROUP_REPLICATION_STREAM, INNODB_REDO_LOG_
→ ARCHIVE, INNODB_REDO_LOG_ENABLE, PASSWORDLESS_USER_ADMIN, PERSIST_RO_VARIABLES_ADMIN,
→ REPLICATION_APPLIER, REPLICATION_SLAVE_ADMIN, RESOURCE_GROUP_ADMIN, RESOURCE_GROUP_USER,
→ ROLE_ADMIN, SENSITIVE_VARIABLES_OBSERVER, SERVICE_CONNECTION_ADMIN, SESSION_VARIABLES_ADMIN,
→ SET_USER_ID, SHOW_ROUTINE, SYSTEM_USER, SYSTEM_VARIABLES_ADMIN, TABLE_ENCRYPTION_ADMIN, XA_
→ RECOVER_ADMIN ON *.* TO `greatdb`@`%`;

```

```
GRANT PROXY ON ``@`` TO `greatdb`@`%`;
```

12. 登录数据库验证测试

```

/opt/greatdb/svr/greatdb/bin/greatdb -h 127.0.0.1 -P 3306 -u greatdb -p
select user(), current_user();
create database test;
use test;
create table test.t1(id int primary key, c1 int, c2 int, c3 int);
insert into test.t1 values(1,1,1,1);
alter table test.t1 add Column mid int;
show create table test.t1 \G;

```

4 导入 GreatDB 许可

1. 检查许可证有效时间

```
GreatDB V1.0> select * from information_schema.license;
+-----+-----+-----+-----+-----+
| TYPE   | START_TIME           | EXPIRED_TIME           | COMPANY_NAME | PROJECT_ID |
+-----+-----+-----+-----+-----+
| TRIAL  | 2024-07-15 00:00:00  | 2026-07-15 00:00:00  | GreatDB      | GreatDB    |
+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

2. 导入许可证

```
# cp license.key /opt/greatdb/avr/greatdb/bin/
cp: 是否覆盖 '/opt/greatdb/avr/greatdb/bin/license.key'? y

# systemctl restart greatdb-3306.service

# /opt/greatdb/avr/greatdb/bin/greatdb -h 127.0.0.1 -P 3306 -u greatdb -p
GreatDB V1.0> select * from information_schema.license;
+-----+-----+-----+-----+-----+
↪ | TYPE   | START_TIME           | EXPIRED_TIME           | COMPANY_NAME | PROJECT_ID |
↪ |-----+-----+-----+-----+-----+
↪ | TRIAL  | 2024-11-28 00:00:00  | 9999-12-31 00:00:00  | 鼎甲科技      | BJ(24)QD-
↪ Q3005 |
+-----+-----+-----+-----+-----+
↪ |-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```


5.1 设置环境变量

```
ln -s /opt/greatdb/avr/greatdb/bin/greatdb /usr/bin/mysql
ln -s /opt/greatdb/avr/greatdb/bin/greatdbdump /usr/bin/mysqldump

mysql --version    ##检查 mysql 版本
mysqldump --version  ##检查 mysqldump 版本
```

5.2 配置 Catalog

```
/opt/scutech/dbackup3/bin/config connector mysql --base host=127.0.0.1 --port=3306 --
↪user=root --password=password
/etc/init.d/dbackup3-backupd stop
/opt/scutech/dbackup3/bin/migrate sqlite mysql
sed -i 's/-m common/-m common --no-single-transaction/g' /etc/opt/scutech/dbackup3/backupd/
↪database.d/base.conf
/etc/init.d/dbackup3-backupd restart
```



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