

第 5 章 openGauss 编译与安装实验报告

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1. 按照步骤成功完成 openGauss 源代码编译, 并安装 openGauss 数据库。

```
cd /home/zhaozhao/openGauss-compile/openGauss-server-v3.0.0
./build.sh
...
make[1]: Leaving directory '/home/zhaozhao/openGauss-compile/openGauss-server-v3.0.0/src/gausskernel'
rm autoinc.o
make[1]: Leaving directory '/home/zhaozhao/openGauss-compile/openGauss-server-v3.0.0/src/test/progress'
make[1]: Leaving directory '/home/zhaozhao/openGauss-compile/openGauss-server-v3.0.0/src/test/progress'
all of openGauss successfully made. Ready to install.
installGauss-Sqls openGauss-server-v3.0.0 [1]
```

```
cd /home/zhaozhao/openGauss-compile/openGauss-server-v3.0.0
./install.sh
...
The files belonging to this database system will be owned by user "zhaozhao".
This user must also own the server process.

The database cluster will be initialized with locale "en_US.UTF-8".
The default text search configuration will be set to "english".

creating directory /home/zhaozhao/openGauss-compile/openGauss-server-v3.0.0/data/data ... ok
creating subdirectories ... ok
selecting default max_connections ... 100
selecting default shared_buffers ... 128M
creating configuration files ... ok
begining init...
[INIT DONE] Init done successfully.
creating template database in /home/zhaozhao/openGauss-compile/openGauss-server-v3.0.0/data/data/... The data directory is an invalid directory
2024-03-25 15:12:34.675 [unknown] [process 2044696141320 010:000] [BACKLOG WARNING] maxid=1 in 64022/103173215, sysid=0 in 1352222040
OK
initializing pg_authd ... ok
setting password ... ok
installing dependencies ... ok
loading PL/pgSQL server-side language ... ok
creating system views ... ok
creating performance views ... ok
loading system objects' descriptions ... ok
creating collations ... ok
creating conversions ... ok
creating dictionaries ... ok
setting privileges on built-in objects ... ok
initializing global configure for buketmap length ... ok
creating information scheme ... ok
loading foreign-data wrapper for dafte access ... ok
loading foreign-data wrapper for info access
loading foreign-data wrapper for log access ... ok
loading before extension ... ok
loading security plugin ... ok
update system tables ... ok
creating postgres catalog ... ok
vacuuming database template ... ok
copying template1 to postgres ... ok
copying template1 to postgres ... ok
freezing database template ... ok
freezing database postgres ... ok

WARNING: enabling "trust" authentication for local connections
You can change this by editing pg_hba.conf or using the option -A, or
-auth-local and -auth-host, the next time you run gs_initdb.

Success. You can now start the database server of single mode using:
gs_initdb -D /home/zhaozhao/openGauss-compile/openGauss-server-v3.0.0/data/data -i single_mode
or
gs_initdb -D /home/zhaozhao/openGauss-compile/openGauss-server-v3.0.0/data/data -i single_mode -l logfile
installGauss-Sqls openGauss-server-v3.0.0 [2]
```

2. 完成 openGauss 数据库初始化，并启动数据库服务器。

[illegible]

3. 完成 gsql 客户端连接数据库服务器并成功执行“SELECT version();”语句。

```

root@db4dc541a:~/openpgm-compile/openpgm-server-v3.0.0#
2024-03-25 18:50:34.169 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [BACKEND] LOG: [Alarm Module]Host IP: 127.0.0.1
2024-03-25 18:50:34.169 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [BACKEND] LOG: [Alarm Module]Get ENV GS_CLUSTER_NAME failed:
2024-03-25 18:50:34.169 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [BACKEND] LOG: [Alarm Module]Invalid data in AlarmInfo file! Read alarm English name failed! line: 57
2024-03-25 18:50:34.174 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [BACKEND] LOG: loaded library "security_plugin"
2024-03-25 18:50:34.174 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [BACKEND] WARNING: could not create any HA TCP/IP sockets
2024-03-25 18:50:34.174 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [BACKEND] WARNING: could not create any HA TCP/IP sockets
2024-03-25 18:50:34.174 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [BACKEND] WARNING: No regular IP is configured for listen_addresses GDC.
2024-03-25 18:50:34.177 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [BACKEND] LOG: initMain mainModule: 1 main_module_mode: none inheritThreadPool: 0
2024-03-25 18:50:34.177 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [BACKEND] LOG: reserved memory for backend threads is: 250 MB
2024-03-25 18:50:34.177 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [BACKEND] LOG: reserved memory for WAL buffers is: 128 MB
2024-03-25 18:50:34.177 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [BACKEND] LOG: set max backend reserve memory is: 948 MB, max dynamic memory is: 11027 MB
2024-03-25 18:50:34.177 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [BACKEND] LOG: shared memory 400 Mbytes, memory context 11375 Mbytes, max process memory 12288 Mbytes
2024-03-25 18:50:34.210 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [CHECK] LOG: set data cache size (462653184)
2024-03-25 18:50:34.225 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [CHECK] LOG: set metadata cache size (19817728)
2024-03-25 18:50:34.264 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [CHECK] LOG: Segment-page constants: DP_HAP_SIZE: 8194, DP_HAP_BIT_CNT: 65248, DP_HAP_GROUP_EXENTS: 4178572, IPPOOL_SIZE: 8168, EXTENTS_PER_IPPOOL: 16
2024-03-25 18:50:34.277 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [CHECK] LOG: gausssib_fayno file "/home/db4dc541a/openpgm-compile/openpgm-server-v3.0.0/data/gausssib.state.tmp" success
2024-03-25 18:50:34.277 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [CHECK] LOG: create gausssib state file success, do state (STARTING_STATE), server mode(Normal), connection index(1)
2024-03-25 18:50:34.346 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [CHECK] LOG: max_sasl_fds = 976, usable_fds = 1000, already_open = 14
2024-03-25 18:50:34.346 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [CHECK] LOG: the core dump path is an invalid directory
2024-03-25 18:50:34.350 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [CHECK] LOG: user configure file is not found, it will be created.
2024-03-25 18:50:34.353 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [CHECK] LOG: the configure file /home/db4dc541a/openpgm-compile/openpgm-server-v3.0.0/etc/etcd/gpgmconf_db4dc541a.conf doesn't exist or the size of configure file is greater than 1000000000
2024-03-25 18:50:34.383 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [CHECK] LOG: Failed to parse coregou config file.
2024-03-25 18:50:34.393 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [EXECUTOR] WARNING: Failed to obtain environment value GAUSSHSQL!
2024-03-25 18:50:34.393 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [EXECUTOR] DETAIL: N/A
2024-03-25 18:50:34.393 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [EXECUTOR] CAUSE: Incorrect environment value.
2024-03-25 18:50:34.393 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [EXECUTOR] ACTION: Please refer to backend log for more details.
2024-03-25 18:50:34.394 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [EXECUTOR] WARNING: Failed to obtain environment value GAUSSHSQL!
2024-03-25 18:50:34.394 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [EXECUTOR] DETAIL: N/A
2024-03-25 18:50:34.394 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [EXECUTOR] CAUSE: Incorrect environment value.
2024-03-25 18:50:34.394 [unknown] [unknown] localhost:2816660719496 [0]0800 0 [EXECUTOR] ACTION: Please refer to backend log for more details.
2024-03-25 18:50:35.066 [unknown] [pg_ctl: done]
2024-03-25 18:50:35.066 [unknown] [pg_ctl: server started (/home/db4dc541a/openpgm-compile/openpgm-server-v3.0.0/data/data)]
db4dc541a:openpgm-server-v3.0.0# pg_ctl status > GAUSSHSQL/home/data
pg_ctl status is running (PID 100939)
/home/db4dc541a/openpgm-compile/openpgm-server-v3.0.0/etc/init/pgm/daemon -D "/home/db4dc541a/openpgm-compile/openpgm-server-v3.0.0/data/data"
db4dc541a:openpgm-server-v3.0.0# pg_ctl postmaster -t
pg_ctl (openpgm-server-v3.0.0 build) compiled at 2024-03-25 18:17:23 commit 0 last nc debug on
pg_ctl connection (pg_ctl connection is recommended when requiring high-security)
type "help" for help.
openpgm=# ALTER ROLE 'db4dc541a' PASSWORD '123';
ERROR: password must contain at least 8 characters.
openpgm=# ALTER ROLE 'db4dc541a' PASSWORD '12345678';
ERROR: password must contain at least 8 characters.
openpgm=# ALTER ROLE 'db4dc541a' PASSWORD 'ga123456';
ALTER ROLE
openpgm=# ALTER ROLE 'db4dc541a' PASSWORD 'db4dc541a123';
ALTER ROLE
openpgm=# SELECT VERSION();
          version
-----
pgm-server-v3.0.0 build) compiled at 2024-03-25 18:17:23 commit 0 last nc debug on satch44-unknown-linux-gnu, compiled by g++ (GCC) 7.3.0, 64-bit
11.650
root@db4dc541a:~/openpgm-compile/openpgm-server-v3.0.0#

```

实验讨论与总结

1. 编译 Open Gauss-server 时出现各种各样的软件包缺失
检查环境变量/.bashrc 中的 BINARYLIBS 指向哪里, 是否指向下载的第三方包的解压目录
2. 下载源代码时速度很慢
可以调节弹性网卡的带宽
3. Config 配置出现报错
具体报错忘了截图了, 但是文档中的命令多了个换行, 多了个空格 (lib/)