## 2.安装RPM 包

```

yum localinstall PolarDB-O-0200-2.0.0-20200611.alios7.x86\_64.rpm -y

```

安装完成后，会有以下的目录产生：

`/usr/local/polardb\_o\_current `

## 3.创建数据库启动账号

其中polardb 可以替换成任意的其他用户名和用户组名。

```

groupadd polardb

useradd -g polardb polardb

```

## 4.initdb 生成数据目录

```

例如数据库盘为/polardb

mkdir /polardb/polardb\_data

export LD\_LIBRARY\_PATH=/usr/local/polardb\_o\_current/lib:$LD\_LIBRARY\_PATH

/usr/local/polardb\_o\_current/bin/initdb -D /polardb/polardb\_data

```

## 5.修改配置文件

如果对配置文件需要修改，例如port ，max\_connections 等等，可以直接修改上文“数据目录”下的postgresql.conf 文件。

不修改，则默认会使用5444 端口

配置文件的最佳实践，见++步骤9++，此配置文件没有配置归档日志。

## 6.启动数据库

其中-l 的参数会记录数据库运行的日志，可设置“数据库启动账号”拥有写和创建目录权限的路径。

```

/usr/local/polardb\_o\_current/bin/pg\_ctl -D /polardb/polardb\_data -l /polardb/polardb\_data/polardb.log start

```

## 7.停止数据库

```

/usr/local/polardb\_o\_current/bin/pg\_ctl -D /polardb/polardb\_data stop -m f

```

## 8.连接数据库

```

su polardb;

export LD\_LIBRARY\_PATH=/usr/local/polardb\_o\_current/lib:$LD\_LIBRARY\_PATH;

/usr/local/polardb\_o\_current/bin/psql postgres

```

## 9.配置文件参考

```

archive\_mode=off

auth\_delay.milliseconds=3000

autovacuum=on

autovacuum\_analyze\_scale\_factor=0.05

autovacuum\_analyze\_threshold=100

autovacuum\_freeze\_max\_age=1200000000

autovacuum\_max\_workers=8

autovacuum\_multixact\_freeze\_max\_age=1400000000

autovacuum\_naptime=6s

autovacuum\_vacuum\_cost\_delay=0

autovacuum\_vacuum\_cost\_limit=-1

autovacuum\_vacuum\_scale\_factor=0.05

autovacuum\_vacuum\_threshold=100

autovacuum\_work\_mem=4GB #from hugepage

bgwriter\_delay=10

bgwriter\_flush\_after=128

bgwriter\_lru\_maxpages=1000

bgwriter\_lru\_multiplier=10

checkpoint\_completion\_target=0.9

checkpoint\_flush\_after=256

checkpoint\_timeout=1h

commit\_delay=0 #TPCC set commit\_delay=1000

commit\_siblings=5

data\_sync\_retry=off

DateStyle='redwood,show\_time'

db\_dialect=redwood

default\_with\_oids=off

default\_with\_rowids=off

effective\_cache\_size=120GB #equal to shared\_buffer

effective\_io\_concurrency=0

enable\_partitionwise\_aggregate=on

enable\_partitionwise\_join=on

fsync=on

full\_page\_writes=off #local disk mode, maybe crc error.

hot\_standby\_feedback=on

hot\_standby=on

huge\_pages=on

idle\_in\_transaction\_session\_timeout=3600000

join\_collapse\_limit=8

listen\_addresses='\*'

lock\_timeout=0

log\_autovacuum\_min\_duration=0

log\_checkpoints=on

log\_connections=on

log\_destination='polar\_multi\_dest'

log\_directory=log

log\_disconnections=on

log\_duration=off

log\_file\_mode=0600

log\_line\_prefix='\1\n\t%p\t%r\t%u\t%d\t%t\t%e\t%T\t%S\t%U\t%E\t\t'

log\_lock\_waits=on

log\_min\_duration\_statement=5000

log\_rotation\_age=0

log\_rotation\_size=131072

log\_statement\_stats=off

log\_statement=none

log\_temp\_files=100000

log\_timezone=UTC

log\_truncate\_on\_rotation=on

logging\_collector=on

maintenance\_work\_mem=4GB #from hugepage

max\_connections=3000

max\_parallel\_maintenance\_workers=16

max\_parallel\_workers\_per\_gather=24

max\_parallel\_workers=32

max\_prepared\_transactions=800

max\_stack\_depth=6144

max\_sync\_workers\_per\_subscription=18

max\_wal\_senders=0 #single database mode

max\_wal\_size=128GB

max\_worker\_processes=256

min\_wal\_size=64GB

old\_snapshot\_threshold=-1

password\_encryption=md5

pg\_stat\_statements.max=5000

pg\_stat\_statements.save=on

pg\_stat\_statements.track\_utility=off

pg\_stat\_statements.track=all

polar\_bulk\_extend\_size=512

polar\_clog\_slot\_size=8192

polar\_comp\_dynatune\_profile=oltp

polar\_comp\_dynatune=0

polar\_comp\_early\_lock\_release=off

polar\_comp\_enable\_pruning=on

polar\_comp\_redwood\_date=on

polar\_comp\_redwood\_greatest\_least=on

polar\_comp\_redwood\_raw\_names=on

polar\_comp\_redwood\_strings=on

polar\_copy\_buffers=16384

polar\_csn\_enable=on

polar\_csnlog\_slot\_size=8192

polar\_datadir='/dmdb/data\_dmdsc/polar\_data/'

polar\_disk\_name='/dmdb/data\_dmdsc/polar\_data/'

polar\_enable\_connectby\_multiexpr=off

polar\_enable\_default\_polar\_comp\_guc=off

polar\_enable\_physical\_repl\_non\_super\_wal\_snd=off

polar\_enable\_rowid=on

polar\_enable\_shared\_storage\_mode=off

polar\_enable\_show\_polar\_comp\_version=on

polar\_enable\_slru\_hash\_index=true

polar\_enable\_syslog\_pipe\_buffer=off

polar\_enable\_varchar2\_length\_with\_byte=off

polar\_global\_temp\_table\_debug=off

polar\_hostid=1

polar\_logical\_repl\_workers\_reserved\_for\_superuser=16

polar\_logindex\_bloom\_blocks=12288

polar\_logindex\_mem\_size=0 #from hugepage，非共享模式下关闭logindex

polar\_max\_log\_files=20

polar\_max\_non\_super\_conns=12800

polar\_max\_super\_conns=100

polar\_num\_active\_global\_temp\_table=1000

polar\_parallel\_new\_bgwriter\_threshold\_lag=6GB #from hugepage

polar\_read\_ahead\_xlog\_num=200

polar\_spl\_savepoint\_enable=on

polar\_vfs.localfs\_test\_mode=on

polar\_vfs.enable\_file\_size\_cache=on

polar\_vfs.enbale\_io\_time\_stat=on

polar\_vfs.max\_pfsd\_io\_size=4194304

polar\_vfs.pfs\_force\_mount=on

polar\_wal\_buffer\_insert\_locks=64

polar\_wal\_snd\_reserved\_for\_superuser=32

polar\_xlog\_page\_buffers=7250MB #from hugepage

polar\_xlog\_queue\_buffers=6144MB #from hugepage

polar\_xlog\_record\_buffers=25GB

port=5432

random\_page\_cost=1.1

shared\_buffers=120GB #hugepage \* 0.6

shared\_preload\_libraries='polar\_vfs,polar\_worker,dbms\_pipe,edb\_gen,pg\_stat\_statements,auth\_delay,auto\_explain,pg\_cron,plugin\_debugger,polar\_monitor\_preload,pg\_wait\_sampling'

statement\_timeout=0

superuser\_reserved\_connections=100

synchronous\_commit=on #TPCC set off, but Duration not guarantee

tcp\_keepalives\_count=10

tcp\_keepalives\_idle=60

tcp\_keepalives\_interval=10

temp\_buffers=1024

temp\_file\_limit=10000000

timezone='UTC'

track\_activities=on

track\_activity\_query\_size=1024

track\_commit\_timestamp=off

track\_counts=on

track\_functions=pl

track\_io\_timing=on

unix\_socket\_directories='/tmp'

unix\_socket\_permissions=0700

vacuum\_cleanup\_index\_scale\_factor=0.1

vacuum\_cost\_delay=0

vacuum\_cost\_limit=10000 #TPCC

vacuum\_cost\_page\_dirty=20

vacuum\_cost\_page\_hit=1

vacuum\_cost\_page\_miss=10

vacuum\_defer\_cleanup\_age=0

vacuum\_freeze\_min\_age=50000000

vacuum\_freeze\_table\_age=200000000

vacuum\_multixact\_freeze\_min\_age=5000000

vacuum\_multixact\_freeze\_table\_age=200000000

wal\_buffers=1GB #from hugepage

wal\_compression=off

wal\_keep\_segments=0

wal\_level=replica # not RW-RO and Master-Standby mode

wal\_log\_hints=off

wal\_receiver\_status\_interval=10

wal\_receiver\_timeout=30000

wal\_retrieve\_retry\_interval=5000

wal\_sender\_timeout=60000

wal\_sync\_method=fdatasync

wal\_writer\_delay=10

wal\_writer\_flush\_after=64

work\_mem=72MB

constraint\_exclusion='partition'

```