

1. OceanBase 手动部署、扩容、缩容全纪录

主要记录了 OceanBase 手动部署的过程，包括单节点部署、手动扩容至3单节点、手动扩容至6节点、手动缩容至3节点并下线节点、obproxy 手动部署等。

2. 服务器信息

24C,128GB,/data目录剩余空间大于1T（如果空间不多的话，一个节点给20GB即可，再小的空间没有验证过。）

3. 软件安装

从官网# <https://www.oceanbase.com/softwareCenter/community> 下载主要的软件，包括： oceanbase-ce、oceanbase-ce-libs、obproxy、obclient 等 rpm 包。

3.1 rpm 包信息

```
1 [admin@localhost ~]$ tree obsoft/ -L 1
2 obsoft/
3 |— libobclient-2.0.0-2.el7.x86_64.rpm
4 |— obclient-2.0.0-2.el7.x86_64.rpm
5 |— obproxy-3.2.0-1.el7.x86_64.rpm
6 |— oceanbase-ce-3.1.1-4.el7.x86_64.rpm
7 |— oceanbase-ce-libs-3.1.1-4.el7.x86_64.rpm
8 |— oceanbase-ce-utils-3.1.1-4.el7.x86_64.rpm
9
10 1 directory, 5 files
```

3.2 执行安装

```
1 # 如果之前安装过，可使用下面的命令进行清理
2 [admin@localhost ~]$ rpm -e `rpm -qa|grep oceanbase`
3
4 # 软件会默认安装到admin用户下。
5 [admin@localhost ~]$ sudo rpm -ivh oceanbase-ce-libs-3.1.1-4.el7.x86_64.rpm
6 sudo rpm -ivh oceanbase-ce-3.1.1-4.el7.x86_64.rpm
7 sudo rpm -ivh obclient-2.0.0-2.el7.x86_64.rpm
8 sudo rpm -vih libobclient-2.0.0-2.el7.x86_64.rpm
```

3.3 查看安装后的信息

```
1 # 使用rpm -ql命令进行查询，示例如下：
2 [admin@localhost ~]$ rpm -ql oceanbase-ce
3 /home/admin/oceanbase/bin
4 /home/admin/oceanbase/bin/import_time_zone_info.py
5 /home/admin/oceanbase/bin/observer
6 /home/admin/oceanbase/etc
7 /home/admin/oceanbase/etc/timezone_V1.log
8
```

3.4 安装后的软件信息

```
1 [admin@localhost ~]$ tree /home/admin/oceanbase/
2 oceanbase/
3 |— bin
4 |   |— import_time_zone_info.py
5 |   |— observer
6 |— etc
7 |   |— timezone_V1.log
8 |— lib
9     |— libaio.so -> libaio.so.1.0.1
10    |— libaio.so.1 -> libaio.so.1.0.1
11    |— libaio.so.1.0.1
12    |— libmariadb.so -> libmariadb.so.3
13    |— libmariadb.so.3
14
```

4. 单节点部署

4.1 创建目录

```
1 [admin@localhost ~]$ sudo chown admin:admin /data/obdata/ -R
2 [admin@localhost ~]$ mkdir -p /data/obdata/observer01/store/slog
3 [admin@localhost ~]$ mkdir -p /data/obdata/observer01/store/sstable
4 # 其余的目录observer进程启动时会自动创建
```

4.2 启动 observer 进程

```
1 # 设置lib信息
2 [admin@localhost ~]$ export
   LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/home/admin/oceanbase/lib/
3
4 [admin@localhost ~]$ cd /data/obdata/observer01/ &&
   /home/admin/oceanbase/bin/observer -i em1 -p 2881 -P 2882 -z zone1 -d
   /data/obdata/observer01/store -r '192.168.101.100:2882:2881' -c 20211207 -n
   obdemo -o
   "memory_limit=8G,cache_wash_threshold=1G,__min_full_resource_pool_memory=26843545
   6,system_memory=3G,memory_chunk_cache_size=128M,cpu_count=16,net_thread_count=4,d
   atafile_size=20G,stack_size=1536K,config_additional_dir=/data/obdata/observer01/e
   tcdata3/etc3;/data/obdata/observer01/etcdata2/etc2"
5 # 其中：-n 是指定集群的名字，如果不指定，默认的集群叫：obcluster。
6
7 [admin@localhost ~]$ ps -ef |grep observer # 查看进程信息
8
```

4.3 集群 bootstrap

```

1 [admin@localhost ~]$mysql -h127.1 -uroot -P2881 -p -c -A # 默认空密码
2 mysql> set session ob_query_timeout=1000000000;
3 mysql> alter system bootstrap ZONE 'zone1' SERVER '192.168.101.100:2882' ;
4 mysql> alter user root identified by 'oracle_4U' ; # 更改root密码
5 mysql> exit;
6
7 [admin@localhost ~]$ mysql -h127.1 -uroot -P2881 -poracle_4U -c -A oceanbase
8 # 可参考附录中 常用SQL 对一些基本信息进行查询

```

5. 创建租户

```

1 -- 为避免资源不足，在服务器内存充足的情况，可以先增加memory_limit的值。如下：
2 mysql> alter system set memory_limit='12G' ;
3
4 mysql> show parameters like 'memory_limit' \G
5 ***** 1. row *****
6     zone: zone1
7     svr_type: observer
8     svr_ip: 192.168.101.100
9     svr_port: 2882
10    name: memory_limit
11    data_type: NULL
12    value: 12G # 已经变更为12GB
13    info: the size of the memory reserved for internal use(for testing
14    purpose), 0 means follow memory_limit_percentage. Range: 0, [8G,)
15    section: OBSERVER
16    scope: CLUSTER
17    source: DEFAULT
18    edit_level: DYNAMIC_EFFECTIVE
19    1 row in set (0.00 sec)

```

```

20
21 mysql> CREATE resource unit my_unit_config max_cpu=4, min_cpu=4,
max_memory='1G', min_memory='1G', max_iops=10000, min_iops=1000,
max_session_num=1000000, max_disk_size='10G';
22 mysql> CREATE resource pool pool_mysql_01 unit = 'my_unit_config', unit_num = 1;
23 mysql> CREATE tenant mysql01 resource_pool_list=('pool_mysql_01'),
primary_zone='RANDOM',comment 'mysql tenant/instance', charset='utf8mb4' set
ob_tcp_invited_nodes='%', ob_compatibility_mode='mysql';
24
25 mysql> CREATE resource pool pool_mysql_02 unit = 'my_unit_config', unit_num = 1;
26 mysql> CREATE tenant mysql02 resource_pool_list=('pool_mysql_02'),
primary_zone='RANDOM',comment 'mysql tenant/instance', charset='utf8' set
ob_tcp_invited_nodes='%', ob_compatibility_mode='mysql';
27
28 mysql> select * from __all_tenant; -- 或 select * from gv$tenant;
29
30 # 登录租户 mysql01
31 [admin@tmgboss101100 oceanbase]$ mysql -h127.1 -uroot@mysql01 -P2881 -p -c -A
oceanbase #root默认密码为空，可以使用alter user更改，这里的root和sys租户的root用户不
是同一个。
32
33 # 创建库和表，也方便扩容后验证。
34 mysql> create database db1;
35 mysql> use db1;
36 mysql> create table t1(id int);
37 mysql> insert into t1 values(1),(2),(3) ;
38 mysql> select * from t1 ;
39 +-----+
40 | id    |
41 +-----+
42 |     1 |
43 |     2 |
44 |     3 |

```

```
45 +-----+
46 3 rows in set (0.00 sec)
47
```

6. 扩容至3节点

6.1 扩容第二个节点

6.1.1 创建目录

```
1 [admin@localhost ~]$ mkdir -p /data/obdata/observer02/store/slog
2 [admin@localhost ~]$ mkdir -p /data/obdata/observer02/store/sstable
```

6.1.2 启动 observer 进程

```

1  # 确保所有的observer01都替换成observer02。
2  # -z zone2
3  [admin@localhost ~]$ export
   LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/home/admin/oceanbase/lib/
4
5  [admin@localhost ~]$ cd /data/obdata/observer02/ &&
   /home/admin/oceanbase/bin/observer -i em1 -p 3881 -P 3882 -z zone2 -d
   /data/obdata/observer02/store -r '192.168.101.100:2882:2881' -c 20211207 -n
   obdemo -o
   "memory_limit=8G,cache_wash_threshold=1G,__min_full_resource_pool_memory=26843545
   6,system_memory=3G,memory_chunk_cache_size=128M,cpu_count=16,net_thread_count=4,d
   atafile_size=20G,stack_size=1536K,config_additional_dir=/data/obdata/observer02/e
   tcdata3/etc3;/data/obdata/observer02/etcdata2/etc2"
6
7  [admin@localhost ~]$ pidof observer # 查看进程信息

```

6.1.3 添加到集群

```

1  mysql> select * from __all_zone where name in ('region','status','zone_type');
2
3  +-----+-----+-----+-----+
4  |gmt_create|gmt_modified|zone|name|
5  |value|info|
6  +-----+-----+-----+-----+
7  |2021-12-07 16:13:55.586766|2021-12-07 16:13:55.586766|zone1|region|
8  |0|default_region|
9  |2021-12-07 16:13:55.584654|2021-12-07 16:13:55.584654|zone1|status|
10 |2|ACTIVE|
11 |2021-12-07 16:13:55.586766|2021-12-07 16:13:55.586766|zone1|zone_type|
12 |0|ReadWrite|
13 +-----+-----+-----+-----+
14
15 mysql> alter system add zone 'zone2' region 'default_region';

```

```

11 mysql> alter system start zone 'zone2';
12 mysql> alter system add server '192.168.101.100:3882' zone 'zone2';
13 mysql> alter system start server '192.168.101.100:3882' zone 'zone2';
14
15 mysql> alter resource pool pool_mysql_01 zone_list=('zone1','zone2') ;
16
17 mysql>select t1.name resource_pool_name, t2.`name` unit_config_name, t2.max_cpu,
t2.min_cpu, t2.max_memory/1024/1024/1024 max_mem_gb,
t2.min_memory/1024/1024/1024 min_mem_gb, t3.unit_id, t3.zone,
concat(t3.svr_ip,':',t3.`svr_port`) observer,t4.tenant_id, t4.tenant_name
18 from __all_resource_pool t1 join __all_unit_config t2 on
(t1.unit_config_id=t2.unit_config_id)
19     join __all_unit t3 on (t1.`resource_pool_id` = t3.`resource_pool_id`)
20     left join __all_tenant t4 on (t1.tenant_id=t4.tenant_id)
21 order by t1.`resource_pool_id`, t2.`unit_config_id`, t3.unit_id;
22
23 mysql> alter tenant mysql01 locality='FULL{1}@zone1, FULL{1}@zone2';
24 mysql> select
gmt_create,gmt_modified,job_id,job_type,job_status,return_code,progress,tenant_i
d from __all_rootservice_job;
25

```

6.2 扩容第三个节点

6.2.1 创建目录

```

1 [admin@localhost ~]$ mkdir -p /data/obdata/observer03/store/slog
2 [admin@localhost ~]$ mkdir -p /data/obdata/observer03/store/sstable

```

6.2.2 启动 observer 进程

```
1 # 确保所有的observer01都替换成observer03.
2 # -z zone3
3 [admin@localhost ~]$ cd /data/obdata/observer03/ &&
/home/admin/oceanbase/bin/observer -i em1 -p 4881 -P 4882 -z zone3 -d
/data/obdata/observer03/store -r '192.168.101.100:2882:2881' -c 20211207 -n
obdemo -o
"memory_limit=8G,cache_wash_threshold=1G,__min_full_resource_pool_memory=26843545
6,system_memory=3G,memory_chunk_cache_size=128M,cpu_count=16,net_thread_count=4,d
atafile_size=20G,stack_size=1536K,config_additional_dir=/data/obdata/observer03/e
tcdata3/etc3;/data/obdata/observer03/etcdata2/etc2"
```

6.2.3 添加到集群

```
1 mysql> alter system add zone 'zone3' region 'default_region';
2 mysql> alter system start zone 'zone3';
3 mysql> alter system add server '192.168.101.100:4882' zone 'zone3';
4 mysql> alter system start server '192.168.101.100:4882' zone 'zone3' ;
5
6 mysql> alter resource pool pool_mysql_01 zone_list=('zone1','zone2','zone3') ;
7
8 mysql> select t1.name resource_pool_name, t2.`name` unit_config_name,
t2.max_cpu, t2.min_cpu, t2.max_memory/1024/1024/1024 max_mem_gb,
t2.min_memory/1024/1024/1024 min_mem_gb, t3.unit_id, t3.zone,
concat(t3.svr_ip,':',t3.`svr_port`) observer,t4.tenant_id, t4.tenant_name
9 from __all_resource_pool t1 join __all_unit_config t2 on
(t1.unit_config_id=t2.unit_config_id)
10 join __all_unit t3 on (t1.`resource_pool_id` = t3.`resource_pool_id`)
11 left join __all_tenant t4 on (t1.tenant_id=t4.tenant_id)
12 order by t1.`resource_pool_id`, t2.`unit_config_id`, t3.unit_id;
13
```

```
14 mysql> alter tenant mysql01 locality='FULL{1}@zone1, FULL{1}@zone2,  
FULL{1}@zone3';  
15 mysql> select  
gmt_create,gmt_modified,job_id,job_type,job_status,return_code,progress,tenant_i  
d from __all_rootservice_job; --直到success为止。  
16
```

6.3 登录验证

分别通过2881,3881,4881端口登录 `mysql01` 租户，验证数据是否存在。 `root` 密码默认空。

```
1 [admin@localhost ~]$ mysql -h127.1 -uroot@mysql01 -P2881 -p -c -A oceanbase  
2 mysql> select * from db1.t1;  
3 +-----+  
4 | id |  
5 +-----+  
6 | 1 |  
7 | 2 |  
8 | 3 |  
9 +-----+  
10 3 rows in set (0.00 sec)  
11  
12 [admin@localhost ~]$ mysql -h127.1 -uroot@mysql01 -P3881 -p -c -A oceanbase  
13 mysql> select * from db1.t1;  
14 +-----+  
15 | id |  
16 +-----+  
17 | 1 |  
18 | 2 |  
19 | 3 |  
20 +-----+  
21 3 rows in set (0.00 sec)  
22
```

```
23 [admin@localhost ~]$ mysql -h127.1 -uroot@mysql01 -P4881 -p -c -A oceanbase
24 mysql> select * from db1.t1;
25 +-----+
26 | id    |
27 +-----+
28 |     1 |
29 |     2 |
30 |     3 |
31 +-----+
32 3 rows in set (0.01 sec)
```

7. obproxy安装

7.1 安装

```
1 [admin@localhost ~]$ sudo rpm -ivh obproxy-3.2.0-1.el7.x86_64.rpm
2 #安装完成目录结构如下:
3 [admin@localhost ~]$ tree /home/admin/obproxy-3.2.0/
4 /home/admin/obproxy-3.2.0/
5 └─ bin
6     └─ obproxy
7     └─ obproxyd.sh
8
9 1 directory, 2 files
```

7.2 创建内部账户

```

1 [admin@localhost ~]$ mysql -h127.1 -uroot -P4881 -p -c -A oceanbase
2 mysql> create user proxyro identified by 'oracle_4U';
3 mysql> grant select on oceanbase.* to proxyro;

```

7.3 启动

```

1 [admin@localhost ~]$ mkdir /data/obdata/obproxy -p
2 [admin@localhost ~]$ cd /data/obdata/obproxy && /home/admin/obproxy-
3.2.0/bin/obproxy -p2883 -c obdemo -r
"192.168.101.100:2881;192.168.101.100:3881;192.168.101.100:4881" -o
"enable_cluster_checkout=false,enable_strict_kernel_release=false,enable_metadb_
used=false"
3
4 [admin@localhost ~]$ netstat -ntlp | grep 2883
5 (Not all processes could be identified, non-owned process info
6 will not be shown, you would have to be root to see it all.)
7 tcp          0      0 0.0.0.0:2883          0.0.0.0:*            LISTEN
8
9 # 登录obproxy
10 [admin@localhost ~]$ mysql -h127.1 -P2883 -uroot@proxysys -p -A -c # 默认密码为空
11 mysql> show proxyconfig like '%password%';
12 mysql> alter proxyconfig set observer_sys_password = 'oracle_4U' ;
13 mysql> alter proxyconfig set obproxy_sys_password = 'oracle_4U' ;
14
15 # 验证
16 [admin@localhost ~]$ obclient -h127.1 -uroot@sys#obdemo -P2883 -poracle_4U -c -A
oceanbase
17 [admin@localhost ~]$ obclient -h127.1 -uroot@mysql01#obdemo -P2883 -p -c -A
oceanbase # 密码为空

```

8. 在线更换服务器

8.1 扩容至六节点

8.1.1 创建目录

```
1 [admin@localhost ~]$ mkdir -p /data/obdata/observer0{6,7,8}/store/slog
2 [admin@localhost ~]$ mkdir -p /data/obdata/observer0{6,7,8}/store/sstable
```

8.1.2 启动 **observer** 进程

```

1 [admin@localhost ~]$ cd /data/obdata/observer06/ &&
/home/admin/oceanbase/bin/observer -i em1 -p 6881 -P 6882 -z zone6 -d
/data/obdata/observer06/store -r '192.168.101.100:2882:2881' -c 20211207 -n
obdemo -o
"memory_limit=8G,cache_wash_threshold=1G,__min_full_resource_pool_memory=26843545
6,system_memory=3G,memory_chunk_cache_size=128M,cpu_count=16,net_thread_count=4,d
atafile_size=20G,stack_size=1536K,config_additional_dir=/data/obdata/observer06/e
tcdata3/etc3;/data/obdata/observer06/etcdata2/etc2"
2
3 [admin@localhost ~]$ cd /data/obdata/observer07/ &&
/home/admin/oceanbase/bin/observer -i em1 -p 7881 -P 7882 -z zone7 -d
/data/obdata/observer07/store -r '192.168.101.100:2882:2881' -c 20211207 -n
obdemo -o
"memory_limit=8G,cache_wash_threshold=1G,__min_full_resource_pool_memory=26843545
6,system_memory=3G,memory_chunk_cache_size=128M,cpu_count=16,net_thread_count=4,d
atafile_size=20G,stack_size=1536K,config_additional_dir=/data/obdata/observer07/e
tcdata3/etc3;/data/obdata/observer07/etcdata2/etc2"
4
5 [admin@localhost ~]$ cd /data/obdata/observer08/ &&
/home/admin/oceanbase/bin/observer -i em1 -p 8881 -P 8882 -z zone8 -d
/data/obdata/observer08/store -r '192.168.101.100:2882:2881' -c 20211207 -n
obdemo -o
"memory_limit=8G,cache_wash_threshold=1G,__min_full_resource_pool_memory=26843545
6,system_memory=3G,memory_chunk_cache_size=128M,cpu_count=16,net_thread_count=4,d
atafile_size=20G,stack_size=1536K,config_additional_dir=/data/obdata/observer08/e
tcdata3/etc3;/data/obdata/observer08/etcdata2/etc2"

```

8.1.3 添加到集群

```

1 mysql> select * from __all_zone where name in ('region','status','zone_type');
2 mysql> alter system add zone 'zone6' region 'default_region';
3 mysql> alter system start zone 'zone6';
4 mysql> alter system add server '192.168.101.100:6882' zone 'zone6';
5 mysql> alter system start server '192.168.101.100:6882' zone 'zone6';

```

```

6
7 mysql> alter system add zone 'zone7' region 'default_region';
8 mysql> alter system start zone 'zone7';
9 mysql> alter system add server '192.168.101.100:7882' zone 'zone7';
10 mysql> alter system start server '192.168.101.100:7882' zone 'zone7';
11
12 mysql> alter system add zone 'zone8' region 'default_region';
13 mysql> alter system start zone 'zone8';
14 mysql> alter system add server '192.168.101.100:8882' zone 'zone8';
15 mysql> alter system start server '192.168.101.100:8882' zone 'zone8';
16
17 mysql> alter resource pool pool_mysql_01 zone_list=
    ('zone1','zone2','zone3','zone6','zone7','zone8') ;
18
19 mysql> select t1.name resource_pool_name, t2.`name` unit_config_name,
    t2.max_cpu, t2.min_cpu, t2.max_memory/1024/1024/1024 max_mem_gb,
    t2.min_memory/1024/1024/1024 min_mem_gb, t3.unit_id, t3.zone,
    concat(t3.svr_ip,':',t3.`svr_port`) observer,t4.tenant_id, t4.tenant_name
20 from __all_resource_pool t1 join __all_unit_config t2 on
    (t1.unit_config_id=t2.unit_config_id)
21     join __all_unit t3 on (t1.`resource_pool_id` = t3.`resource_pool_id`)
22     left join __all_tenant t4 on (t1.tenant_id=t4.tenant_id)
23 order by t1.`resource_pool_id`, t2.`unit_config_id`, t3.unit_id;
24
25 mysql> alter tenant mysql01 locality='FULL{1}@zone1, FULL{1}@zone2,
    FULL{1}@zone3, FULL{1}@zone6';
26 mysql> select
    gmt_create,gmt_modified,job_id,job_type,job_status,return_code,progress,tenant_i
    d from __all_rootservice_job;
27 mysql> alter tenant mysql01 locality='FULL{1}@zone1, FULL{1}@zone2,
    FULL{1}@zone3, FULL{1}@zone6, FULL{1}@zone7';
28 mysql> alter tenant mysql01 locality='FULL{1}@zone1, FULL{1}@zone2,
    FULL{1}@zone3, FULL{1}@zone6, FULL{1}@zone7, FULL{1}@zone8';

```

8.1.4 验证

```
1 [admin@localhost ~]$ mysql -uroot@mysql01 -p -P8881 -h127.1 -c -A oceanbase
2 mysql> select * from db1.t1;
3 +-----+
4 | id    |
5 +-----+
6 |     1 |
7 |     2 |
8 |     3 |
9 +-----+
10 3 rows in set (0.04 sec)
```

8.2 将 zone1、zone2、zone3 下线

```
1 # 先改资源池里的zone属性，再改tenant的locality属性，locality只能逐个递增添加，不支持
  一次添加多个。
2
3 mysql> select * from gv$tenant;
4 mysql> alter tenant mysql01 locality='FULL{1}@zone2, FULL{1}@zone3,
  FULL{1}@zone6, FULL{1}@zone7, FULL{1}@zone8';
5 mysql> alter tenant mysql01 locality='FULL{1}@zone3, FULL{1}@zone6,
  FULL{1}@zone7, FULL{1}@zone8';
6 mysql> alter tenant mysql01 locality='FULL{1}@zone6, FULL{1}@zone7,
  FULL{1}@zone8';
7 mysql> alter resource pool pool_mysql_01 zone_list=('zone6', 'zone7', 'zone8');
8
9
10 mysql> alter resource pool pool_mysql_02 zone_list=('zone1', 'zone8');
11
12 mysql> alter tenant mysql02 locality='FULL{1}@zone1, FULL{1}@zone8';
```

```
12 mysql> alter resource pool pool_mysql_02 zone_list=('zone1','zone8','zone6');
13 mysql> alter tenant mysql02 locality='FULL{1}@zone1,FULL{1}@zone8,
FULL{1}@zone6';
14 mysql> alter tenant mysql02 locality='FULL{1}@zone8, FULL{1}@zone6';
15 mysql> alter tenant mysql02 primary_zone='zone6' ;
16
17 mysql> alter tenant mysql02 locality='FULL{1}@zone6';
18 -- 这里会报错: ERROR 4179 (HY000): violate locality principal not allowed.
19 -- 不允许缩容到一个副本。 只有搭建单集群的时候才会出现单副本的情况。
20
21
22 # 修改sys租户资源池及locality
23
24 mysql> alter resource pool sys_pool zone_list('zone6','zone7','zone8') ;
25 ERROR 4179 (HY000): Cannot add and delete zones at the same time not allowed #
原来sys_pool里只有zone1, 上述命令效果是删除和添加, 提示不允许。
26 mysql> alter resource pool sys_pool zone_list('zone1','zone6','zone7','zone8') ;
27
28 msyql> alter resource pool sys_pool zone_list=('zone6') ;
29 ERROR 4179 (HY000): alter resource pool zone list with not empty unit not
allowed
30 # 上面报错了, 先去修改sys租户的locality。
31 mysql> alter tenant sys locality='FULL{1}@zone7,FULL{1}@zone1';
32 mysql> select
gmt_create,gmt_modified,job_id,job_type,job_status,return_code,progress,tenant_i
d from __all_rootservice_job; -- 查看进度
33
34
35 mysql> alter tenant sys primary_zone='zone7;zone1' ;
36 mysql> alter tenant sys locality='FULL{1}@zone7,FULL{1}@zone1,FULL{1}@zone6';
37 mysql> alter tenant sys locality='FULL{1}@zone7,FULL{1}@zone6';
38
39
40 -- 删除zone1、 zone2、 zone3
41 mysql> alter system delete server '192.168.101.100:2882' zone 'zone1';
42 mysql> alter system delete server '192.168.101.100:3882' zone 'zone2';
43 mysql> alter system delete server '192.168.101.100:4882' zone 'zone3';
```

```
44
45 mysql> alter system delete zone 'zone1';
46 mysql> alter system delete zone 'zone2';
47 mysql> alter system delete zone 'zone3';
48
49
50 -- 杀掉进程 、 删除目录
51 [admin@localhost ~]$ for obid in `pidof observer`; do ls -l /proc/$obid/cwd;
done
52 lrwxrwxrwx 1 admin admin 0 Dec  8 11:18 /proc/39101/cwd ->
/data/obdata/observer02
53 lrwxrwxrwx 1 admin admin 0 Dec  8 11:18 /proc/33240/cwd ->
/data/obdata/observer01
54 lrwxrwxrwx 1 admin admin 0 Dec  8 11:18 /proc/26951/cwd ->
/data/obdata/observer03
55 lrwxrwxrwx 1 admin admin 0 Dec  8 11:18 /proc/20414/cwd ->
/data/obdata/observer08
56 lrwxrwxrwx 1 admin admin 0 Dec  8 11:18 /proc/19234/cwd ->
/data/obdata/observer07
57 lrwxrwxrwx 1 admin admin 0 Dec  8 11:18 /proc/17157/cwd ->
/data/obdata/observer06
58 [admin@localhost ~]$ kill -9 39101 33240 26951
59 [admin@localhost ~]$ rm -rf /data/obdata/observer0{1,2,3}
```

8.3 重新配置obproxy

参考前面 [obproxy安装部分](#) ,此处省略。

9. 附录

9.1 常用SQL

```
1  # 查看集群可用资源
2  select a.zone,concat(a.svr_ip,':',a.svr_port) observer, cpu_total, cpu_assigned,
   (cpu_total-cpu_assigned) cpu_free, mem_total/1024/1024/1024 mem_total_gb,
   mem_assigned/1024/1024/1024 mem_assign_gb, (mem_total-
   mem_assigned)/1024/1024/1024 mem_free_gb
3  from __all_virtual_server_stat a join __all_server b on (a.svr_ip=b.svr_ip and
   a.svr_port=b.svr_port)
4  order by a.zone, a.svr_ip;
5
6  # 查看资源分配细节
7  select t1.name resource_pool_name, t2.`name` unit_config_name, t2.max_cpu,
   t2.min_cpu, t2.max_memory/1024/1024/1024 max_mem_gb,
   t2.min_memory/1024/1024/1024 min_mem_gb, t3.unit_id, t3.zone,
   concat(t3.svr_ip,':',t3.`svr_port`) observer,t4.tenant_id, t4.tenant_name
8  from __all_resource_pool t1 join __all_unit_config t2 on
   (t1.unit_config_id=t2.unit_config_id)
9      join __all_unit t3 on (t1.`resource_pool_id` = t3.`resource_pool_id`)
10     left join __all_tenant t4 on (t1.tenant_id=t4.tenant_id)
11  order by t1.`resource_pool_id`, t2.`unit_config_id`, t3.unit_id;
12
13  # 查看所有的资源规格
14  select * from __all_unit_config;
15
16  # 创建资源池
17  create resource pool pool_1 unit='S1' , unit_num=1, zone_list=('zone1' , 'zone2')
   ;
18  create resource pool pool_2 unit='S2' , unit_num=1, zone_list=('zone3');
19
20  # 创建租户
21  create tenant obmysql resource_pool_list=('pool_1','pool_2'),
   primary_zone='RANDOM',comment 'mysql tenant/instance', charset='utf8' set
   ob_tcp_invited_nodes='%';
```

```

22  ## ob_tcp_invited_nodes 控制哪些主机可以访问，类似MySQL创建用户时host配置。
23  #查看所有的租户信息
24  select * from gv$tenant;
25
26  #连接新建的obmysql租户
27  obclient -uroot@obmysql#obcluster -h127.0.1 -P2883 -poracle_4U! -A -c # root默
    认密码为空，可通过alter user identified by语句修改。这个的root与sys租户下的root是独
    立的。
28

```

9.2 分盘

```

1
2  # 生产环境官方建议data和redo目录分开存放，可以这样模拟尝试。
3  [admin@tmgboss101100 observer01]$ mkdir -p
    /data/obdata/observer01/data/obdemo/{sstable,etc3}
    /data/obdata/observer01/redo/obdemo/{clog,ilog,slog,etc2}
4  [admin@tmgboss101100 obdemo]$ sudo mkdir -p
    /home/admin/oceanbase/obstore1/obdemo
5  [admin@tmgboss101100 obdemo]$ sudo chown -R admin:admin
    /home/admin/oceanbase/obstore1
6
7  # 软链接
8  [admin@tmgboss101100 ~]$ for f in {clog,ilog,slog,etc2}; do ln -s
    /data/obdata/observer01/redo/obdemo/$f ~/oceanbase/obstore1/obdemo/$f ; done
9  ## 拆分命令如下：
10 ln -s /data/obdata/observer01/redo/obdemo/clog
    ~/observer01/obstore1/obdemo/clog
11 ln -s /data/obdata/observer01/redo/obdemo/ilog
    ~/observer01/obstore1/obdemo/ilog
12 ln -s /data/obdata/observer01/redo/obdemo/slog
    ~/observer01/obstore1/obdemo/slog

```

```
13 ln -s /data/obdata/observer01/redo/obdemo/etc2
   ~/observer01/obstore1/obdemo/etc2
14
15 [admin@tmgboss101100 ~]$ for f in {sstable,etc3}; do ln -s
   /data/obdata/observer01/data/obdemo/$f ~/oceanbase/obstore1/obdemo/$f; done
16
17
18 # 完成后的目录结构如下:
19 [admin@tmgboss101100 oceanbase]$ tree ~/oceanbase
20 /home/admin/oceanbase
21 └─ bin
22 │   └─ import_time_zone_info.py
23 │   └─ observer
24 └─ etc
25 │   └─ timezone_V1.log
26 └─ lib
27 │   └─ libaio.so -> libaio.so.1.0.1
28 │   └─ libaio.so.1 -> libaio.so.1.0.1
29 │   └─ libaio.so.1.0.1
30 │   └─ libmariadb.so -> libmariadb.so.3
31 │   └─ libmariadb.so.3
32 └─ obstore1
33 │   └─ obdemo
34 │       └─ clog -> /data/obdata/observer01/redo/obdemo/clog
35 │       └─ etc2 -> /data/obdata/observer01/redo/obdemo/etc2
36 │       └─ etc3 -> /data/obdata/observer01/data/obdemo/etc3
37 │       └─ ilog -> /data/obdata/observer01/redo/obdemo/ilog
38 │       └─ slog -> /data/obdata/observer01/redo/obdemo/slog
39 │       └─ sstable -> /data/obdata/observer01/data/obdemo/sstable
40
41 11 directories, 8 files
```

9.3 卸载

```
1 sudo rpm -e `rpm -qa|grep oceanbase`  
2 /bin/rm /home/admin/oceanbase  
3
```