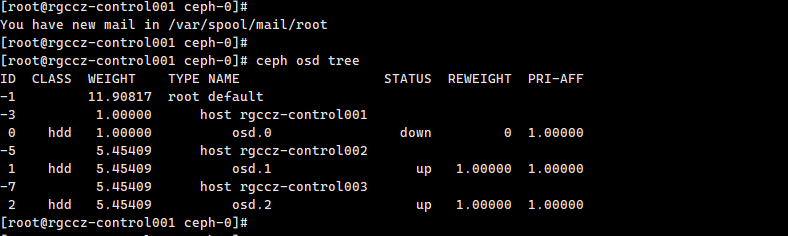
# 【现网问题】ceph15.2.17版本重启osd进程无法自拉起问题定位

## 问题描述

Ceph15.2.17版本修改ceph.conf配置文件后，执行如下命令进行重启ceph服务：

systemctl restart ceph.target

然后发现ceph OSD.0 down，无法正常拉起



## **问题分析**

1.查看一下ceph OSD.0日志如下所示：

[root@rgccz-control001 ~]# tailf /var/log/ceph/ceph-osd.0.log

2025-04-30T07:44:42.072+0800 7f58c68fbbc0 0 set uid:gid to 167:167 (ceph:ceph)

2025-04-30T07:44:42.072+0800 7f58c68fbbc0 0 ceph version 15.2.17 (8a82819d84cf884bd39c17e3236e0632ac146dc4) octopus (stable), process ceph-osd, pid 49186

2025-04-30T07:44:42.072+0800 7f58c68fbbc0 0 pidfile\_write: ignore empty --pid-file

2025-04-30T07:44:42.073+0800 7f58c68fbbc0 -1 bluestore(/var/lib/ceph/osd/ceph-0/block) \_read\_bdev\_label failed to open /var/lib/ceph/osd/ceph-0/block: (13) Permission denied

2025-04-30T07:44:42.073+0800 7f58c68fbbc0 -1 \*\* ERROR: unable to open OSD superblock on /var/lib/ceph/osd/ceph-0: (2) No such file or directory

2025-04-30T07:44:52.253+0800 7fb7abfb9bc0 0 set uid:gid to 167:167 (ceph:ceph)

2025-04-30T07:44:52.253+0800 7fb7abfb9bc0 0 ceph version 15.2.17 (8a82819d84cf884bd39c17e3236e0632ac146dc4) octopus (stable), process ceph-osd, pid 49615

2025-04-30T07:44:52.253+0800 7fb7abfb9bc0 0 pidfile\_write: ignore empty --pid-file

2025-04-30T07:44:52.254+0800 7fb7abfb9bc0 -1 bluestore(/var/lib/ceph/osd/ceph-0/block) \_read\_bdev\_label failed to open /var/lib/ceph/osd/ceph-0/block: (13) Permission denied

2025-04-30T07:44:52.254+0800 7fb7abfb9bc0 -1 \*\* ERROR: unable to open OSD superblock on /var/lib/ceph/osd/ceph-0: (2) No such file or directory

2025-04-30T07:45:02.496+0800 7fad6abaebc0 0 set uid:gid to 167:167 (ceph:ceph)

2025-04-30T07:45:02.496+0800 7fad6abaebc0 0 ceph version 15.2.17 (8a82819d84cf884bd39c17e3236e0632ac146dc4) octopus (stable), process ceph-osd, pid 50015

2025-04-30T07:45:02.496+0800 7fad6abaebc0 0 pidfile\_write: ignore empty --pid-file

2025-04-30T07:45:02.498+0800 7fad6abaebc0 -1 bluestore(/var/lib/ceph/osd/ceph-0/block) \_read\_bdev\_label failed to open /var/lib/ceph/osd/ceph-0/block: (13) Permission denied

2025-04-30T07:45:02.498+0800 7fad6abaebc0 -1 \*\* ERROR: unable to open OSD superblock on /var/lib/ceph/osd/ceph-0: (2) No such file or directory

可以看到是osd.0 目录block 没有权限，所以读取不了超级块信息，无法被加载起来

2.一开始以为目录/var/lib/ceph/osd/ceph-0是空的，未挂载状态，对比正常osd目录似乎也没有问题，而且权限也是对的，如下所示：

问题osd目录

[root@rgccz-control001 ceph-0]# ll

total 28

lrwxrwxrwx 1 ceph ceph 93 Apr 29 17:26 block -> /dev/ceph-ac1cef91-27c8-47e7-9bde-96cdd9149d95/osd-block-2220a973-1655-42f3-b723-f6dc18859cbc

-rw------- 1 ceph ceph 37 Apr 29 17:24 ceph\_fsid

-rw------- 1 ceph ceph 37 Apr 29 17:24 fsid

-rw------- 1 ceph ceph 55 Apr 29 17:24 keyring

-rw------- 1 ceph ceph 6 Apr 29 17:24 ready

-rw------- 1 ceph ceph 3 Apr 29 17:28 require\_osd\_release

-rw------- 1 ceph ceph 10 Apr 29 17:24 type

-rw------- 1 ceph ceph 2 Apr 29 17:24 whoami

正常OSD目录

[root@rgccz-control002 ceph-1]# ll

total 28

lrwxrwxrwx 1 ceph ceph 93 Feb 18 11:33 block -> /dev/ceph-9914b268-3ddc-4206-b0e3-2f1d8c97abf4/osd-block-80a0e3d2-0cfc-405d-81ff-96645e226d07

-rw------- 1 ceph ceph 37 Feb 18 11:33 ceph\_fsid

-rw------- 1 ceph ceph 37 Feb 18 11:33 fsid

-rw------- 1 ceph ceph 55 Feb 18 11:33 keyring

-rw------- 1 ceph ceph 6 Feb 18 11:33 ready

-rw------- 1 ceph ceph 3 Feb 18 11:33 require\_osd\_release

-rw------- 1 ceph ceph 10 Feb 18 11:33 type

-rw------- 1 ceph ceph 2 Feb 18 11:33 whoami

即使重启umount 再挂载还是不行，重启服务出现同样报错。

3.继续查看dm-0权限，发现了不同

异常osd对应权限

[root@rgccz-control001 ceph-0]# ll /dev/dm-0

brw-rw---- 1 root disk 253, 0 Apr 29 17:01 /dev/dm-0

正常osd权限

[root@rgccz-control002 ceph-1]# ll /dev/dm-0

brw-rw---- 1 ceph ceph 253, 0 Apr 30 07:49 /dev/dm-0

那问题估计是出在这里

## **问题解决**

修改权限，如下所示：

[root@rgccz-control001 ceph-0]# chown -R ceph:ceph /dev/dm-0

[root@rgccz-control001 ceph-0]#

[root@rgccz-control001 ceph-0]# ll /dev/dm-0

brw-rw---- 1 ceph ceph 253, 0 Apr 29 17:01 /dev/dm-0

重启服务

[root@rgccz-control001 ceph-0]# systemctl reset-failed ceph-osd@0.service

[root@rgccz-control001 ceph-0]#

[root@rgccz-control001 ceph-0]# systemctl start ceph-osd@0.service

[root@rgccz-control001 ceph-0]#

[root@rgccz-control001 ceph-0]#

[root@rgccz-control001 ceph-0]# systemctl status ceph-osd@0.service

● ceph-osd@0.service - Ceph object storage daemon osd.0

Loaded: loaded (/usr/lib/systemd/system/ceph-osd@.service; enabled-runtime; vendor preset: disabled)

Active: active (running) since Wed 2025-04-30 07:50:24 CST; 3s ago

Process: 1190 ExecStartPre=/usr/lib/ceph/ceph-osd-prestart.sh --cluster ${CLUSTER} --id %i (code=exited, status=0/SUCCESS)

Main PID: 1196 (ceph-osd)

CGroup: /system.slice/system-ceph\x2dosd.slice/ceph-osd@0.service

└─1196 /usr/bin/ceph-osd -f --cluster ceph --id 0 --setuser ceph --setgroup ceph

Apr 30 07:50:24 rgccz-control001.ostack.hfb3.iflytek.net systemd[1]: Starting Ceph object storage daemon osd.0...

Apr 30 07:50:24 rgccz-control001.ostack.hfb3.iflytek.net systemd[1]: Started Ceph object storage daemon osd.0.

Apr 30 07:50:25 rgccz-control001.ostack.hfb3.iflytek.net ceph-osd[1196]: 2025-04-30T07:50:25.060+0800 7f0c3e573...ce

Hint: Some lines were ellipsized, use -l to show in full.

一切恢复正常

