Ceph - Bug #9971

OSD crashes again after restarting due to op thread time out at writing pg dirty log

10/30/2014 09:32 PM - David Zhang

Status: Duplicate
Priority: Normal
Assignee: 
Category: OSD
Target version: 
Source: Community (dev)
Tags: 
Backport: 
Regression: 
Severity: 3 - minor

Description

This crashes observed when one OSD was restarted after being down for a long time, it crashed again because its op thread timed out.

Restarting it multiple times seems to workaround it.


2014-10-30 04:48:35.781346 7f69bdf1d700 10 osd.73 23999 dequeue_op 0x20360c30 prio 63 cost 0 latency 239.712660 MOSDECSOpWrite(3.1ebcs7 23997 ECSOpWrite(tid=636693, reqid=client.128441.0:3087729, at_version=23997’16994, trim_to=0’, trim_rollback_to=23914’16165) v1 pg pg[3.1ebcs7( v23997’16993 lc 23914’1615 (1109’13061,23997’16993] local-les=23994 n=16903 ec=255 les/c 23994/23932 23993/23993/20676) [387,136,140,60,86,248,419,73,179,66,474] r=7 lpr=23993 pi=255-23992/260 luod=’0’0’ crt=23992’16986 active m=821]

2014-10-30 04:48:35.781401 7f69bdf1d700 10 osd.73 pg_epoch: 23997 pg[3.1ebcs7( v23997’16993 lc 23914’16165 (1109’13061,23997’16993] local-les=23994 n=16904 ec=255 les/c 23994/23932 23993/23993/20676) [387,136,140,60,86,248,419,73,179,66,474] r=7 lpr=23993 pi=255-23992/260 luod=’0’0’ crt=23992’16986 active m=821] handle_message: MOSDECSOpWrite(3.1ebcs7 23997 ECSOpWrite(tid=636693, reqid=client.128441.0:3087729, at_version=23997’16994, trim_to=0’, trim_rollback_to=23914’16165) v1

2014-10-30 04:48:35.781511 7f69bdf1d700 10 osd.73 pg_epoch: 23997 pg[3.1ebcs7( v23997’16993 lc 23914’16165 (1109’13061,23997’16993] local-les=23994 n=16904 ec=255 les/c 23994/23932 23993/23993/20676) [387,136,140,60,86,248,419,73,179,66,474] r=7 lpr=23993 pi=255-23992/260 luod=’0’0’ crt=23992’16986 active m=821] append_log log((1109’13061,23997’16994) (0’0) modify c716febc/default.12479.271_4132633829 Ef1cacbaaf_o.jpg/head//3 by client.128441.0:3087729 2014-10-30 04:44:36.000000]

2014-10-30 04:48:35.781541 7f69bdf1d700 10 osd.73 pg_epoch: 23997 pg[3.1ebcs7( v23997’16993 lc 23914’16165 (1109’13061,23997’16993] local-les=23994 n=16904 ec=255 les/c 23994/23932 23993/23993/20676) [387,136,140,60,86,248,419,73,179,66,474] r=7 lpr=23993 pi=255-23992/260 luod=’0’0’ crt=23992’16986 active m=821] add_log_entry 23997’16994 (0’0) modify c716febc/default.12479.271_4132633829 Ef1cacbaaf_o.jpg/head//3 by client.128441.0:3087729 2014-10-30 04:44:36.000000]

2014-10-30 04:48:35.781551 7f69bdf1d700 10 osd.73 pg_epoch: 23997 pg[3.1ebcs7( v23997’16993 lc 23914’16165 (1109’13061,23997’16993] local-les=23994 n=16904 ec=255 les/c 23994/23932 23993/23993/20676) [387,136,140,60,86,248,419,73,179,66,474] r=7 lpr=23993 pi=255-23992/260 luod=’0’0’ crt=23992’16986 active m=821] append_log log((1109’13061,23997’16994) (0’0) modify c716febc/default.12479.271_4132633829 Ef1cacbaaf_o.jpg/head//3 by client.128441.0:3087729 2014-10-30 04:44:36.000000]
2014-10-30 04:48:35.781609 7f69bdf1d700 10 write_log with: dirty_to: 0'0, dirty_from: 4294967295'18446744073709551615, dirty_divergent_priors: 0, writeout_from: 23997'16994, trimmed: ...

2014-10-30 04:48:54.120749 7f69ef67e700 1 heartbeat_map is_healthy 'OSD::op_thread 0x7f69bdf1d700' had timed out after 15

Related issues:
Duplicates Bug #10157: PGLog::(read|write)_log don't write out rollback_info...

Resolved 11/20/2014

History

#1 - 11/18/2014 01:32 PM - Samuel Just
- Status changed from New to Rejected

Sounds like the disk is too slow for the timeouts, you'll have to increase them.

#2 - 01/15/2015 07:36 PM - Guang Yang
- Category set to OSD
- Status changed from Rejected to New
- Source changed from Community (user) to Community (dev)

Hi Sam,

We came across of this issue a couple of times and Dong Lei did some analysis, Dong will provide more details and let's see if there is room to improve.

Re-open to track.

#3 - 01/15/2015 07:51 PM - Dong Lei

Hi Samuel:

After further investigation, we've identified this problem as a very big transaction(thousands ops in one transaction, 8000+ in some case) is formed according to the "trim_rollback_to" attribute in op. The transaction is so big that it can not get 10% finished in 150s which causes OSD to suicide.

From the log, we can see "trimming to xxx'xxx entries (thousands entries here)" to confirm why the transaction is so big.

We've encountered this pattern several times. Sometimes, it will cause crash. Performance degradation or wrongly marked down at other times.

I don't think increase timeout is a good idea because we currently are not able to give a good estimation on the time consumption.

Can we add some throttle here to limit the trimming operations associated with one normal transaction since I believe trimming does not need to be performed in a strict order and can be easily split (am I correctly here)?

11/25/2015
If so, I think this is a duplicate of 10157.

- Status changed from New to Duplicate