
Subject: Re: Kernel cache dentry leak?

Posted by [insider](#) on Fri, 20 Jan 2012 19:10:13 GMT

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After a last manual cache clear with `echo 2 >/proc/sys/vm/drop_caches` there a 2 days passed, "dentry" now holds 15174252 objects and uses 3372056K and keeps increasing...

slabtop command information:

```
Active / Total Objects (% used) : 15292469 / 15303649 (99.9%)
Active / Total Slabs (% used)    : 851679 / 851681 (100.0%)
Active / Total Caches (% used)   : 122 / 240 (50.8%)
Active / Total Size (% used)     : 3232528.04K / 3234571.11K (99.9%)
Minimum / Average / Maximum Object : 0.02K / 0.21K / 4096.00K
```

```
OBJS ACTIVE USE OBJ SIZE  SLABS OBJ/SLAB CACHE SIZE NAME
15174252 15174204 99%  0.21K 843014   18 3372056K dentry <<=====!!!!
24790 24759 99%  0.10K  670  37 2680K buffer_head
20048 19762 98%  0.03K  179 112  716K size-32
12528 12373 98%  0.08K  261  48 1044K sysfs_dir_cache
10384  9963 95%  0.06K  176  59  704K size-64
 6816  6777 99%  0.62K 1136   6  4544K inode_cache
 4928  3144 63%  0.05K   64  77  256K anon_vma_chain
 4921  4204 85%  0.20K  259  19 1036K vm_area_struct
 4500  4425 98%  0.12K  150  30  600K size-128
 3899  3866 99%  0.55K  557   7  2228K radix_tree_node
 3411  3404 99%  1.05K 1137   3  4548K ext4_inode_cache
 3372  3354 99%  0.83K  843   4  3372K ext3_inode_cache
 3205  3184 99%  0.68K  641   5  2564K proc_inode_cache
 2862  2694 94%  0.07K   54  53  216K Acpi-Operand
 2695  1937 71%  0.05K   35  77  140K anon_vma
 1940  1116 57%  0.19K   97  20  388K cred_jar
 1740  1714 98%  1.00K  435   4  1740K size-1024
 1620  1583 97%  0.19K   81  20  324K size-192
 1440  1055 73%  0.25K   96  15  384K filp
 1380  1332 96%  0.04K   15  92    60K Acpi-Namespace
 1376  1286 93%  0.50K  172   8  688K size-512
  945  904 95%  0.84K  105   9  840K shmem_inode_cache
  612  571 93%  2.00K  306   2 1224K size-2048
  540  345 63%  0.25K   36  15  144K size-256
  510  240 47%  0.11K   15  34    60K task_delay_info
  468  287 61%  0.31K   39  12  156K skbuff_head_cache
  424   56 13%  0.06K   8  53    32K fs_cache
  420  222 52%  0.12K   14  30    56K pid
  308  298 96%  0.53K   44   7  176K idr_layer_cache
  288  231 80%  1.00K   72   4  288K signal_cache
  288   29 10%  0.08K   6  48    24K blkdev_ioc
  288  256 88%  0.02K   2 144    8K dm_target_io
  280  239 85%  0.19K   14  20    56K kmem_cache
```

280	54	19%	0.13K	10	28	40K cfq_io_context
276	62	22%	0.03K	3	92	12K size-32(UBC)
276	256	92%	0.04K	3	92	12K dm_io
270	233	86%	2.06K	90	3	720K sighand_cache
260	238	91%	2.75K	130	2	1040K task_struct
242	242	100%	4.00K	242	1	968K size-4096
240	182	75%	0.75K	48	5	192K sock_inode_cache
202	2	0%	0.02K	1	202	4K jbd2_revoke_table
202	4	1%	0.02K	1	202	4K revoke_table
187	54	28%	0.69K	17	11	136K files_cache
168	56	33%	0.27K	12	14	48K cfq_queue
162	55	33%	0.81K	18	9	144K task_xstate
159	18	11%	0.06K	3	53	12K size-64(UBC)
153	99	64%	0.81K	17	9	136K UNIX
144	32	22%	0.02K	1	144	4K jbd2_journal_handle
124	74	59%	1.00K	31	4	124K size-1024(UBC)
120	18	15%	0.19K	6	20	24K bio-0
120	45	37%	0.12K	4	30	16K inotify_inode_mark_entry

Is there a way to dump contents of dentry to a file, maybe to inspect and investigate, what this cache contains?

I have tried with "dd" copy from /dev/mem to a files, but it not allows to dump full kernel memory...

Maybe this problem is related to a filesystem?

We have mounted these filesystems:

/dev/md2 on / type ext4 (rw)

proc on /proc type proc (rw)

none on /dev/pts type devpts (rw,gid=5,mode=620)

/dev/md0 on /boot type ext3 (rw)

/dev/mapper/vg0-vz on /vz type ext3 (rw)

none on /proc/sys/fs/binfmt_misc type binfmt_misc (rw)

beancounter on /proc/vz/beancounter type cgroup (rw,name=beancounter)

container on /proc/vz/container type cgroup (rw,name=container)

fairsched on /proc/vz/fairsched type cgroup (rw,name=fairsched)

Searching for a solution or a way to investigate this problem, but still unsuccessful...

Upgraded kernel to 2.6.32-042stab044.17 #1 SMP Fri Jan 13 12:53:58 MSK 2012 x86_64 x86_64 x86_64 GNU/Linux, but this not solved dentry leak problem.

Any thoughts?

Does nobody else got this problem with RHEL 6 63bit 2.6.32 ?