
Subject: [PATCH] slub: don't create a copy of the name string in kmem_cache_create

Posted by [Glauber Costa](#) on Fri, 13 Apr 2012 21:06:10 GMT

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When creating a cache, slub keeps a copy of the cache name through strdup. The slab however, doesn't do that. This means that everyone registering caches have to keep a copy themselves anyway, since code needs to work on all allocators.

Having slab create a copy of it as well may very well be the right thing to do: but at this point, the callers are already there

My motivation for it comes from the kmem slab cache controller for memcg. Because we create duplicate caches, having a more consistent behavior here really helps.

I am sending the patch, however, more to probe on your opinion about it. If you guys agree, but don't want to merge it - since it is not fixing anything, nor improving any situation etc, I am more than happy to carry it in my series until it gets merged (fingers crossed).

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CC: Christoph Lameter <cl@linux.com>

CC: Pekka Enberg <penberg@cs.helsinki.fi>

mm/slub.c | 14 +++-----
1 files changed, 2 insertions(+), 12 deletions(-)

diff --git a/mm/slub.c b/mm/slub.c

index ffe13fd..af8cee9 100644

--- a/mm/slub.c

+++ b/mm/slub.c

@@ -3925,7 +3925,6 @@ struct kmem_cache *kmem_cache_create(const char *name, size_t size,

size_t align, unsigned long flags, void (*ctor)(void *))

{
struct kmem_cache *s;

- char *n;

if (WARN_ON(!name))

return NULL;

@@ -3949,26 +3948,20 @@ struct kmem_cache *kmem_cache_create(const char *name, size_t size,

return s;

}

- n = kstrdup(name, GFP_KERNEL);

```

- if (!n)
- goto err;
-
s = kmalloc(kmem_size, GFP_KERNEL);
if (s) {
- if (kmem_cache_open(s, n,
+ if (kmem_cache_open(s, name,
size, align, flags, ctor)) {
list_add(&s->list, &slab_caches);
up_write(&slub_lock);
if (sysfs_slab_add(s)) {
down_write(&slub_lock);
list_del(&s->list);
- kfree(n);
kfree(s);
goto err;
}
return s;
}
- kfree(n);
kfree(s);
}
err:
@@ -5212,7 +5205,6 @@ static void kmem_cache_release(struct kobject *kobj)
{
struct kmem_cache *s = to_slab(kobj);

- kfree(s->name);
kfree(s);
}

@@ -5318,11 +5310,9 @@ static int sysfs_slab_add(struct kmem_cache *s)
return err;
}
kobject_uevent(&s->kobj, KOBJ_ADD);
- if (!unmergeable) {
+ if (!unmergeable)
/* Setup first alias */
sysfs_slab_alias(s, s->name);
- kfree(name);
- }
return 0;
}

--
1.7.7.6

```
