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Subject: Re: [PATCH v3 06/16] memcg: infrastructure to match an allocation to the right cache

Posted by [Tejun Heo](#) on Mon, 24 Sep 2012 17:58:01 GMT

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On Mon, Sep 24, 2012 at 12:17:37PM +0400, Glauber Costa wrote:

> On 09/22/2012 12:52 AM, Tejun Heo wrote:

> > Missed some stuff.

> >

> > On Tue, Sep 18, 2012 at 06:12:00PM +0400, Glauber Costa wrote:

> >> +static struct kmem\_cache \*memcg\_create\_kmem\_cache(struct mem\_cgroup \*memcg,

> >> + struct kmem\_cache \*cachep)

> >> +{

> > ...

> >> + memcg->slabs[idx] = new\_cachep;

> > ...

> >> +struct kmem\_cache \*\_\_memcg\_kmem\_get\_cache(struct kmem\_cache \*cachep,

> >> + gfp\_t gfp)

> >> +{

> > ...

> >> + return memcg->slabs[idx];

> >

> > I think you need memory barriers for the above pair.

> >

> > Thanks.

> >

>

> Why is that?

>

> We'll either see a value, or NULL. If we see NULL, we assume the cache

> is not yet created. Not a big deal.

Because when you see !NULL cache pointer you want to be able to see the cache fully initialized. You need wmb between cache creation and pointer assignment and at least read\_barrier\_depends() between fetching the cache pointer and dereferencing it.

Thanks.

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tejun

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