Subject: Re: [PATCH 4/7] chained slab caches: move pages to a different cache when a cache is destroyed.

Posted by Glauber Costa on Wed, 22 Feb 2012 14:50:58 GMT

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On 02/22/2012 03:40 AM, Suleiman Souhlal wrote:

- > On Tue, Feb 21, 2012 at 3:34 AM, Glauber Costa<glommer@parallels.com> wrote:
- >> In the context of tracking kernel memory objects to a cgroup, the
- >> following problem appears: we may need to destroy a cgroup, but
- >> this does not guarantee that all objects inside the cache are dead.
- >> This can't be guaranteed even if we shrink the cache beforehand.

>>

- >> The simple option is to simply leave the cache around. However,
- >> intensive workloads may have generated a lot of objects and thus
- >> the dead cache will live in memory for a long while.

>

> Why is this a problem?

>

- > Leaving the cache around while there are still active objects in it
- > would certainly be a lot simpler to understand and implement.

>

Yeah, I agree on the simplicity. The chained stuff was probably the hardest one in the patchset to get working alright. However, my assumptions are as follow:

- 1) If we bother to be tracking kernel memory, it is because we believe its usage can skyrocket under certain circumstances. In those scenarios, we'll have a lot of objects around. If we just let them flowing, it's just wasted memory that was created from the memcg, but can't be reclaimed on its behalf.
- 2) We can reclaim that, if we have, as a policy, to always start shrinking from those when global pressure kicks in. But then, we move the complication from one part to another.