

Subject: Re: [PATCH v2 04/13] memcg: Make it possible to use the stock for more than one page.

Posted by [Glauber Costa](#) on Sun, 11 Mar 2012 10:49:52 GMT

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On 03/10/2012 12:39 AM, Suleiman Souhlal wrote:

> Signed-off-by: Suleiman Souhlal<suleiman@google.com>

> ---

> mm/memcontrol.c | 18 ++++++++-----

> 1 files changed, 9 insertions(+), 9 deletions(-)

>

> diff --git a/mm/memcontrol.c b/mm/memcontrol.c

> index 6fbb438..f605100 100644

> --- a/mm/memcontrol.c

> +++ b/mm/memcontrol.c

> @@ -1965,19 +1965,19 @@ static DEFINE_PER_CPU(struct memcg_stock_pcp,
memcg_stock);

> static DEFINE_MUTEX(percpu_charge_mutex);

>

> /*

> - * Try to consume stocked charge on this cpu. If success, one page is consumed

> - * from local stock and true is returned. If the stock is 0 or charges from a

> - * cgroup which is not current target, returns false. This stock will be

> - * refilled.

> + * Try to consume stocked charge on this cpu. If success, nr_pages pages are

> + * consumed from local stock and true is returned. If the stock is 0 or

> + * charges from a cgroup which is not current target, returns false.

> + * This stock will be refilled.

> */

> -static bool consume_stock(struct mem_cgroup *memcg)

> +static bool consume_stock(struct mem_cgroup *memcg, int nr_pages)

> {

> struct memcg_stock_pcp *stock;

> bool ret = true;

>

> stock = &get_cpu_var(memcg_stock);

> - if (memcg == stock->cached && stock->nr_pages)

> - stock->nr_pages--;

> + if (memcg == stock->cached && stock->nr_pages >= nr_pages)

> + stock->nr_pages -= nr_pages;

> else /* need to call res_counter_charge */

> ret = false;

> put_cpu_var(memcg_stock);

> @@ -2290,7 +2290,7 @@ again:

> VM_BUG_ON(css_is_removed(&memcg->css));

> if (mem_cgroup_is_root(memcg))

> goto done;

> - if (nr_pages == 1 && consume_stock(memcg))

```

> + if (consume_stock(memcg, nr_pages))
>     goto done;
>     css_get(&memcg->css);
> } else {
> @@ -2315,7 +2315,7 @@ again:
>     rcu_read_unlock();
>     goto done;
> }
> - if (nr_pages == 1&& consume_stock(memcg)) {
> + if (consume_stock(memcg, nr_pages)) {
>     /*
>      * It seems dagerous to access memcg without css_get().
>      * But considering how consume_stok works, it's not

```

This patch itself is fine in what it wants to achieve.
But it made me think:

We'll jump into the stock code which makes user allocation faster.
but we're not getting the benefit of it when we're accounting kmem.
since we're allocating to both res_counters, we're actually defeating it
altogether, since we now have to go to the global poll **everytime** (for
memcg->kmem).

It would make a whole lot more sense to have the stock code moved to the
res_counter. We're now starting to have more users of that anyway, so
a common implementation makes sense.