On Mon, 01 Nov 2010, Johannes Weiner wrote:

> On Mon, Nov 01, 2010 at 08:40:56PM +0100, Jesper Juhl wrote:
> > Hi (please CC me on replies),
> > >
> > > Apologies to those who receive this multiple times. I screwed up the To:
> > > field in my original mail :-(
> > >
> > > In mem_cgroup_alloc() we currently do either kmalloc() or vmalloc() then
> > > followed by memset() to zero the memory. This can be more efficiently
> > > achieved by using kzalloc() and vzalloc().
> > >
> > > Signed-off-by: Jesper Juhl <jj@chaosbits.net>
> >
> > Looks good to me, but there is also the memset after kmalloc in
> > alloc_mem_cgroup_per_zone_info().

Dang, I missed that one. Thanks for pointing it out.

Hmm, I'm wondering if we should perhaps add kzalloc_node()/vzalloc_node()
just like kzalloc() and vzalloc()..

> Can you switch that over as well in
> this patch? You can pass __GFP_ZERO to kmalloc_node() for zeroing.
> 

Sure thing.

Signed-off-by: Jesper Juhl <jj@chaosbits.net>
---
memcontrol.c |    9 +++------
1 file changed, 3 insertions(+), 6 deletions(-)
diff --git a/mm/memcontrol.c b/mm/memcontrol.c
index 9a99cfa..bc32ffe 100644
--- a/mm/memcontrol.c
+++ b/mm/memcontrol.c
@@ -4169,13 +4169,11 @@ static int alloc_mem_cgroup_per_zone_info(struct mem_cgroup
if (!node_state(node, N_NORMAL_MEMORY))
    tmp = -1;
-pn = kmalloc_node(sizeof(*pn), GFP_KERNEL, tmp);
+pn = kmalloc_node(sizeof(*pn), GFP_KERNEL|__GFP_ZERO, tmp);
    if (!pn)
        return 1;

    mem->info.nodeinfo[node] = pn;
-memset(pn, 0, sizeof(*pn));
    for (zone = 0; zone < MAX_NR_ZONES; zone++) {
        mz = &pn->zoneinfo[zone];
        for_each_lru(l)
            @@ -4199,14 +4197,13 @@ static struct mem_cgroup *mem_cgroup_alloc(void)

    /* Can be very big if MAX_NUMNODES is very big */
    if (size < PAGE_SIZE)
        -mem = kmalloc(size, GFP_KERNEL);
        +mem = kzalloc(size, GFP_KERNEL);
        else
            -mem = vmalloc(size);
            +mem = vzalloc(size);

        if (!mem)
            return NULL;

-memset(mem, 0, size);
    mem->stat = alloc_percpu(struct mem_cgroup_stat_cpu);
    if (!mem->stat) {
        if (size < PAGE_SIZE)

--
Jesper Juhl <jj@chaosbits.net>             http://www.chaosbits.net/
Plain text mails only, please      http://www.expita.com/nomime.html
Don't top-post  http://www.catb.org/~esr/jargon/html/T/top-post.html

Containers mailing list
Containers@lists.linuxoundation.org
https://lists.linuxfoundation.org/mailman/listinfo/containers

Subject: Re: [PATCH] cgroup: prefer [kv]zalloc over [kv]malloc+memset in memory
controller code.
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this patch? You can pass __GFP_ZERO to kmalloc_node() for zeroing.

Thanks!

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