
Subject: Re: [-mm PATCH 6/9] Memory controller add per container LRU and reclaim (v4)

Posted by [Peter Zijlstra](#) on Mon, 30 Jul 2007 13:59:20 GMT

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On Mon, 2007-07-30 at 19:07 +0530, Dhaval Giani wrote:

> Hi Balbir,

>

> > diff -puN mm/memcontrol.c~mem-control-lru-and-reclaim mm/memcontrol.c

> > --- linux-2.6.23-rc1-mm1/mm/memcontrol.c~mem-control-lru-and-reclaim 2007-07-28

01:12:50.000000000 +0530

> > +++ linux-2.6.23-rc1-mm1-balbir/mm/memcontrol.c 2007-07-28 01:12:50.000000000 +0530

>

> > /*

> > * The memory controller data structure. The memory controller controls both

> > @@ -51,6 +54,10 @@ struct mem_container {

> > */

> > struct list_head active_list;

> > struct list_head inactive_list;

> > + /*

> > + * spin_lock to protect the per container LRU

> > + */

> > + spinlock_t lru_lock;

> > };

>

> The spinlock is not annotated by lockdep. The following patch should do

> it.

One does not need explicit lockdep annotations unless there is a non obvious use of the locks. A typical example of that would be the inode locks, that get placed differently in the various filesystem's locking hierarchy and might hence seem to generate contradictory locking rules - even though they are consistent within a particular filesystem.

So unless there are 2 or more distinct locking hierarchies this one lock partakes in, there is no need for this annotation.

Was this patch driven by a lockdep report?

> Signed-off-by: Dhaval Giani <dhaval@linux.vnet.ibm.com>

> Signed-off-by: Gautham Shenoy R <ego@in.ibm.com>

>

>

> Index: linux-2.6.23-rc1/mm/memcontrol.c

> =====

> --- linux-2.6.23-rc1.orig/mm/memcontrol.c 2007-07-30 17:27:24.000000000 +0530

> +++ linux-2.6.23-rc1/mm/memcontrol.c 2007-07-30 18:43:40.000000000 +0530

> @@ -501,6 +501,9 @@

```
>
> static struct mem_container init_mem_container;
>
> +/* lockdep should know about lru_lock */
> +static struct lock_class_key lru_lock_key;
> +
> static struct container_subsys_state *
> mem_container_create(struct container_subsys *ss, struct container *cont)
> {
> @@ -519,6 +522,7 @@
>  INIT_LIST_HEAD(&mem->active_list);
>  INIT_LIST_HEAD(&mem->inactive_list);
>  spin_lock_init(&mem->lru_lock);
> + lockdep_set_class(&mem->lru_lock, &lru_lock_key);
>  mem->control_type = MEM_CONTAINER_TYPE_ALL;
>  return &mem->css;
> }
```

Containers mailing list

Containers@lists.linux-foundation.org

<https://lists.linux-foundation.org/mailman/listinfo/containers>
