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Subject: Re: [PATCH, v3 2/2] cgroups: introduce timer slack subsystem

Posted by [jacob.jun.pan](#) on Wed, 02 Feb 2011 22:56:05 GMT

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On Wed, 2 Feb 2011 22:47:36 +0200

"Kirill A. Shutemov" <[kirill@shutemov.name](mailto:kirill@shutemov.name)> wrote:

> From: Kirill A. Shutemov <[kirill@shutemov.name](mailto:kirill@shutemov.name)>

>

> Provides a way of tasks grouping by timer slack value. Introduces per  
> cgroup max and min timer slack value. When a task attaches to a  
> cgroup, its timer slack value adjusts (if needed) to fit min-max  
> range.

>

> It also provides a way to set timer slack value for all tasks in the  
> cgroup at once.

>

> This functionality is useful in mobile devices where certain  
> background apps are attached to a cgroup and minimum wakeups are  
> desired.

>

> Signed-off-by: Kirill A. Shutemov <[kirill@shutemov.name](mailto:kirill@shutemov.name)>

> Idea-by: Jacob Pan <[jacob.jun.pan@linux.intel.com](mailto:jacob.jun.pan@linux.intel.com)>

> ---

> include/linux/cgroup\_subsys.h | 6 +

> include/linux/init\_task.h | 4 +-

> init/Kconfig | 10 ++

> kernel/Makefile | 1 +

> kernel/cgroup\_timer\_slack.c | 242

> ++++++

> +

> +static int cgroup\_timer\_slack\_check(struct task\_struct \*task,

> + unsigned long slack\_ns)

> +{

> + struct cgroup\_subsys\_state \*css;

> + struct timer\_slack\_cgroup \*tslack\_cgroup;

> +

use rcu\_read\_lock()/unlock?

lockdep complains unprotected rcu dereference check.

> + css = task\_subsys\_state(task, timer\_slack\_subsys.subsys\_id);

> + tslack\_cgroup = container\_of(css, struct timer\_slack\_cgroup,

> css); +

> + if (slack\_ns < tslack\_cgroup->min\_slack\_ns)

> + return -EPERM;

> + if (slack\_ns > tslack\_cgroup->max\_slack\_ns)

```
> + return -EPERM;
> + return 0;
> +}
> +

> +
> +static struct cftype files[] = {
> + {
> + .name = "set_slack_ns",
> + .write_u64 = tslack_write_set_slack_ns,
> + },
> + },
should we also allow reading of the current slack_ns?
```

```
> + {
> + .name = "min_slack_ns",
> + .private = TIMER_SLACK_MIN,
> + .read_u64 = tslack_read_range,
> + .write_u64 = tslack_write_range,
> + },
> + {
> + .name = "max_slack_ns",
> + .private = TIMER_SLACK_MAX,
> + .read_u64 = tslack_read_range,
> + .write_u64 = tslack_write_range,
> + },
> +};
> +
```

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Containers mailing list  
Containers@lists.linux-foundation.org  
<https://lists.linux-foundation.org/mailman/listinfo/containers>

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