
Subject: Re: [PATCH] task containersv11 add tasks file interface fix for cpusets
Posted by [David Rientjes](#) on Sun, 07 Oct 2007 06:15:14 GMT
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On Sat, 6 Oct 2007, Paul Menage wrote:

> > The getting and putting of the tasks will prevent them from exiting or
> > being deallocated prematurely. But this is also a critical section that
> > will need to be protected by some mutex so it doesn't race with other
> > set_cpus_allowed().
>
> Is that necessary? If some other process calls set_cpus_allowed()
> concurrently with a cpuset cpus update, it's not clear that there's
> any defined serialization semantics that have to be achieved, as long
> as the end result is that the task's cpus_allowed are within the
> cpuset's cpus_allowed.
>

It can race with sched_setaffinity(). It has to give up tasklist_lock as
well to call set_cpus_allowed() and can race

```
cpus_allowed = cpuset_cpus_allowed(p);  
cpus_and(new_mask, new_mask, cpus_allowed);  
retval = set_cpus_allowed(p, new_mask);
```

and allow a task to have a cpu outside of the cpuset's new cpus_allowed if
you've taken it away between cpuset_cpus_allowed() and set_cpus_allowed().

David

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