Subject: Re: [PATCH] vt: Rework the console spawning variables.
Posted by ebiederm on Sun, 10 Sep 2006 20:10:37 GMT
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Oleg Nesterov <oleg@tv-sign.ru> writes:

> On 09/09, Eric W. Biederman wrote:
>>
>> This patch does several things.
>> - The variables used are moved into a structure and declared in vt_kern.h
>> - A spinlock is added so we don't have SMP races updating the values.
>> - Instead of raw pid_t value a struct_pid is used to guard against
>>   pid wrap around issues, if the daemon to spawn a new console dies.
>
> I am not arguing against this patch, but it's a pity we can't use 'struct pid'
> lockless. What dou you think about this:

Actually with xchg I can use a reference counted struct pid lockless.
In the general case you have more then one variable you want to keep
in sync and you need the lock for that.

rcu is definitely not the solution in these cases as the struct pid
is stored for a long time so we need the reference count.

It might make sense to have some helper code makes that wraps
the following line so it is obvious you can do this.

put_pid(xchg(&vc->vt_pid, get_pid(task_pid(current))));

Perhaps:
```
void update_pid(struct pid **ref, struct pid *new)
{
	struct pid *old;
	get_pid(new);
	old = xchg(ref, new);
	put_pid(old);
}
```

But since I can write it as a moderately clear one liner in the
case that matters I don't much care.

Eric

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