
Subject: Re: [RFC][PATCH 06/14] Populate pid_nrs list with entry for init-pid-ns
Posted by [Herbert Poetzl](#) on Fri, 23 Mar 2007 01:27:51 GMT
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On Wed, Mar 21, 2007 at 03:23:28AM -0600, Eric W. Biederman wrote:

> sukadev@us.ibm.com writes:

>

> > From: Cedric Le Goater <clg@fr.ibm.com>

> > Subject: [RFC][PATCH 06/14] Populate pid_nrs list with entry for init-pid-ns

> >

> > Create/destroy the pid->pid_nrs list - when allocating/freeing a struct pid.

> > The pid_nrs list contains just a single struct pid_nr for now, (corresponding

> > to init-pid-ns).

> >

> > To enable finding a process based on any of its pid_t values, replace the

> > use struct pid_nr, rather than struct pid, in the pid_hash table.

> >

> > Finally, reimplement find_pid() and pid_nr() based on the pid_nrs list.

> >

> > Changelog:

> > - [Serge Hallyn's comment]: Add comments on what pid->lock protects

> > and that pid->nr will eventually go away.

> > - [Eric Biederman and containers list comments]: Reworked patches

> > to drop support for unsharing pid namespace and to replace

> > struct pid with struct pid_nr in the pid_hash table.

> >

> > Signed-off-by: Cedric Le Goater <clg@fr.ibm.com>

> > Signed-off-by: Sukadev Bhattiprolu <sukadev@us.ibm.com>

> > ---

> > include/linux/pid.h | 9 -----

> > kernel/pid.c | 73 ++++++++-----

> > 2 files changed, 50 insertions(+), 32 deletions(-)

> >

>

> > @@ -242,50 +247,70 @@ struct pid_nr *alloc_pid_nr(struct pid_n

> > */

> > pid_nr->pid = pid;

> >

> > + spin_lock_irq(&pidmap_lock);

> > + hlist_add_head_rcu(&pid_nr->pid_chain, &pid_hash[pid_hashfn(nr)]);

> > + spin_unlock_irq(&pidmap_lock);

> > +

>

> Hmm. I think we really need to hash in some of the bits of the

> pid_namespace so processes with identical pids don't get put on

> the same hash chain. It isn't critical but it is a good idea.

yes, can't hurt to distribute that a little, was

already thinking about something like this:

```
#define pid_hashfn(nr) hash_long((unsigned long)(nr ^ space), pidhash_shift)
```

as the hash_long should distribute any changes
quite evenly ...

best,
Herbert

> Eric

> _____

> Containers mailing list

> Containers@lists.linux-foundation.org

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

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