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Subject: Re: + remove-the-likelypid-check-in-copy\_process.patch added to -mm tree

Posted by [Oleg Nesterov](#) on Sat, 17 Mar 2007 17:17:47 GMT

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On 03/17, Eric W. Biederman wrote:

>

> Oleg Nesterov <[oleg@tv-sign.ru](mailto:oleg@tv-sign.ru)> writes:

>

> > On 03/17, Oleg Nesterov wrote:

> >>

> >> > Well the initial kernel process does not have a struct pid so when

> >> > it's children start doing:

> >> > attach\_pid(p, PIDTYPE\_PGID, task\_group(p));

> >> > attach\_pid(p, PIDTYPE\_SID, task\_session(p));

> >> > We will get an oops.

> >>

> >> So far this is the only reason to have init\_struct\_pid. Because the

> >> boot CPU (swapper) forks, right?

> >

> > Damn. I am afraid I was not clear again :) Not init\_struct\_pid, but

> >

> > + .pids = { \

> > + [PIDTYPE\_PID] = INIT\_PID\_LINK(PIDTYPE\_PID), \

> > + [PIDTYPE\_PGID] = INIT\_PID\_LINK(PIDTYPE\_PGID), \

> > + [PIDTYPE\_SID] = INIT\_PID\_LINK(PIDTYPE\_SID), \

> > + }, \

> >

> > for INIT\_TASK().

> >

> >> > So a dummy unhashed struct pid was added for the idle threads.

> >> > Allowing several special cases in the code to be removed.

> >> >

> >> > With that chance the previous special case to force the idle thread

> >> > init session 1 pgrp 1 no longer works because attach\_pid no longer

> >> > looks at the pid value but instead at the struct pid pointers.

> >> >

> >> > So we had to add the \_\_set\_special\_pids() to continue to keep init

> >> > in session 1 pgrp 1. Since /sbin/init calls setsid() that our setting

> >> > the sid and the pgrp may not be strictly necessary. Still is better

> >> > to not take any chances.

> >>

> >> Yes, yes, I see. But my (very unclear, sorry) question was: shouldn't we

> >> change INIT\_SIGNALS then? /sbin/init inherits ->pgrp == ->\_session == 1,

> >> in that case \_\_set\_special\_pids(1,1) does nothing.

> >

> > ... and thus /sbin/init remains attached to the .pids above, no?

>

> The problem is that we dynamically allocate the struct pid for  
> pid\_t == 1 when we fork init.  
>  
> Which means we don't have access to it at compile time so we can  
> no longer make INIT\_SIGNALS set ->gprp == ->session == 1.

Yes! I meant we should change INIT\_SIGNALS(), currently it does

```
#define INIT_SIGNALS(sig) {  
...  
    .gprp      = 1,  
    { .__session = 1},
```

and this confuses (I think) set\_special\_pids(1,1) above. Because  
\_\_set\_special\_pids() still deals with pid\_t, not "struct pid".

Unless I missed something, we should kill these 2 initializations  
above.

Oleg.

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