Subject: Re: [PATCH 4/16] Change data structures for pid namespaces
Posted by Sukadev Bhattiprolu on Tue, 10 Jul 2007 04:32:50 GMT
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Cedric Le Goater [clg@fr.ibm.com] wrote:
| Pavel Emelianov wrote:
| > struct pid_namespace will have the kmem_cache to allocate
| > the pids from, the parent, as they are hierarchical, and
| > the level of nesting value.
| >
| > struct pid will have a variable length array of pid_number-s
| > one for each namespace this pid lives in. The level value
| > shows the level of the namespace this pid lives in and thus -
| > the number of elements in the numbers array.
| >
| > Signed-off-by: Pavel Emelianov <xemul@openvz.org>
| >
| > ---
| >
| > include/linux/init_task.h | 6 ++++++
| > include/linux/pid.h | 9 +++++++++
| > include/linux/pid_namespace.h | 3 +++
| > kernel/pid.c | 3 ++-
| > 4 files changed, 20 insertions(+), 1 deletion(-)
| >
| > diff -upr linux-2.6.22-rc4-mm2.orig/include/linux/pid.h
linux-2.6.22-rc4-mm2-2/include/linux/pid.h
| > --- linux-2.6.22-rc4-mm2.orig/include/linux/pid.h 2007-06-14 12:14:29.000000000 +0400
| > +++ linux-2.6.22-rc4-mm2-2/include/linux/pid.h 2007-07-04 19:00:38.000000000 +0400
| > @@ -40,6 +40,13 @@ enum pid_type
| >   * processes.
| >   */
| >
| > +struct pid_number {
| > + /* Try to keep pid_chain in the same cacheline as nr for find_pid */
| > + int nr;
| > + struct pid_namespace *ns;
| > + struct hlist_node pid_chain;
| > +};

We meant to go back and look at removing the extra 'struct pid *' we had
here. Looks like you did that. Cool.

| > +
| > struct pid
| > {
| >   atomic_t count;
| > @@ -40,6 +40,8 @@ enum pid_type

| >   /* lists of tasks that use this pid */
| >   struct hlist_head tasks[PIDTYPE_MAX];
| >   struct rcu_head rcu;
| > + int level;
| > + struct pid_number numbers[1];
| > };
| >
| > extern struct pid init_struct_pid;
| > diff -upr linux-2.6.22-rc4-mm2.orig/include/linux/pid_namespace.h
linux-2.6.22-rc4-mm2-2/include/linux/pid_namespace.h
| > --- linux-2.6.22-rc4-mm2.orig/include/linux/pid_namespace.h 2007-06-14 12:14:29.000000000
+0400
| > +++ linux-2.6.22-rc4-mm2-2/include/linux/pid_namespace.h 2007-07-04 19:00:39.000000000
+0400
| > @@ -16,7 +15,10 @@ struct pidmap {
| >   struct kref kref;
| >   struct pidmap pidmap[PIDMAP_ENTRIES];
| >   int last_pid;
| > + int level;
| >   struct task_struct *child_reaper;
| > + struct kmem_cache *pid_cachep;
|
| so, that looks like a good idea to have the cache in the pidmap. could you
| push that independently to see how it all fits together ?

Yes. I like this idea too.

|
| thanks,
|
| C.

_____
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