
Subject: [RFC][PATCH 01/14] Define/use task_pid_ns() wrapper
Posted by [Sukadev Bhattiprolu](#) on Wed, 21 Mar 2007 03:11:21 GMT
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From: Sukadev Bhattiprolu <sukadev@us.ibm.com>
Subject: [RFC][PATCH 01/14] Define/use task_pid_ns() wrapper

Use a wrapper to access/set pid_namespace of a task.

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

fs/exec.c | 2 +-
fs/proc/proc_misc.c | 2 +-
include/linux/pid_namespace.h | 5 +++++
kernel/exit.c | 4 ++--
kernel/pid.c | 4 ++--
5 files changed, 11 insertions(+), 6 deletions(-)

Index: 2.6.21-rc3-mm2/fs/exec.c

=====

--- 2.6.21-rc3-mm2.orig/fs/exec.c
+++ 2.6.21-rc3-mm2/fs/exec.c
@@ -620,7 +620,7 @@ static int de_thread(struct task_struct
 * so it is safe to do it under read_lock.
 */
 if (unlikely(tsk->group_leader == child_reaper(tsk)))
 - tsk->nsproxy->pid_ns->child_reaper = tsk;
 + task_pid_ns(tsk)->child_reaper = tsk;

 zap_other_threads(tsk);
 read_unlock(&tasklist_lock);

Index: 2.6.21-rc3-mm2/fs/proc/proc_misc.c

=====

--- 2.6.21-rc3-mm2.orig/fs/proc/proc_misc.c
+++ 2.6.21-rc3-mm2/fs/proc/proc_misc.c
@@ -93,7 +93,7 @@ static int loadavg_read_proc(char *page,
 LOAD_INT(a), LOAD_FRAC(a),
 LOAD_INT(b), LOAD_FRAC(b),
 LOAD_INT(c), LOAD_FRAC(c),
 - nr_running(), nr_threads, current->nsproxy->pid_ns->last_pid);
 + nr_running(), nr_threads, task_pid_ns(current)->last_pid);
 return proc_calc_metrics(page, start, off, count, eof, len);
 }

Index: 2.6.21-rc3-mm2/kernel/exit.c

=====

--- 2.6.21-rc3-mm2.orig/kernel/exit.c
+++ 2.6.21-rc3-mm2/kernel/exit.c

```

@@ -790,8 +790,8 @@ fastcall NORET_TYPE void do_exit(long co
    if (unlikely(!tsk->pid))
        panic("Attempted to kill the idle task!");
    if (unlikely(tsk == child_reaper(tsk))) {
-   if (tsk->nsproxy->pid_ns != &init_pid_ns)
-   tsk->nsproxy->pid_ns->child_reaper = init_pid_ns.child_reaper;
+   if (task_pid_ns(tsk) != &init_pid_ns)
+   task_pid_ns(tsk)->child_reaper = init_pid_ns.child_reaper;
    else
        panic("Attempted to kill init!");
    }

```

Index: 2.6.21-rc3-mm2/kernel/pid.c

```

--- 2.6.21-rc3-mm2.orig/kernel/pid.c
+++ 2.6.21-rc3-mm2/kernel/pid.c
@@ -213,7 +213,7 @@ struct pid *alloc_pid(void)
    if (!pid)
        goto out;

-   nr = alloc_pidmap(current->nsproxy->pid_ns);
+   nr = alloc_pidmap(task_pid_ns(current));
    if (nr < 0)
        goto out_free;

@@ -358,7 +358,7 @@ struct pid *find_ge_pid(int nr)
    pid = find_pid(nr);
    if (pid)
        break;
-   nr = next_pidmap(current->nsproxy->pid_ns, nr);
+   nr = next_pidmap(task_pid_ns(current), nr);
    } while (nr > 0);

    return pid;

```

Index: 2.6.21-rc3-mm2/include/linux/pid_namespace.h

```

--- 2.6.21-rc3-mm2.orig/include/linux/pid_namespace.h
+++ 2.6.21-rc3-mm2/include/linux/pid_namespace.h
@@ -37,6 +37,11 @@ static inline void put_pid_ns(struct pid
    kref_put(&ns->kref, free_pid_ns);
}

+static inline struct pid_namespace *task_pid_ns(struct task_struct *tsk)
+{
+   return tsk->nsproxy->pid_ns;
+}
+
static inline struct task_struct *child_reaper(struct task_struct *tsk)
{

```

```
return init_pid_ns.child_reaper;
```

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```

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